desimal in the service of the servic January 1999 Migrationy Birds Denver Botanic Gardens story on page 3



From the Top

News from the Executive Director



1998 was indeed a year to remember for Denver Botanic Gardens. Major capital projects were completed including the serene West Pond, the lovely Romantic Gardens and the extraordinary opening of Tropical Botanica. In addition, Mrs. Lady Bird Johnson was awarded with our prestigious Denver Botanic Gardens Medal.

With our 50th anniversary just a couple of years away, we still have many challenges and opportunities ahead of us. Based on our senior management strategic planning retreat, and discussions with our staff and Board of Trustees, the following is a brief overview of areas to be emphasized in 1999 and beyond.

Visibility: DBG is a wonderful garden, however, many regional residents have a vague and outdated perception of the Gardens. Producing new image materials and increasing marketing efforts will go a long way to enhance our image.

Appearance: There have been significant improvements in the appearance of the Gardens in the last year. There needs to be a continued high degree of emphasis placed on the importance of DBG's attractiveness. Visitors to the Gardens in the future should expect to see gardens that set a standard of excellence in both beauty and the art and science of horticulture.

Volunteers: Volunteers are the lifeblood of a nonprofit organization whether working in the gardens, Gift Shop or information desk. Volunteer assistance is critical to our success. DBG can only realize its full potential with an active, friendly and involved force of volunteers willing to support the common goal of staff and Trustees. We will work to make their experience as rewarding and enjoyable as possible.

Customer Service: If volunteers are the lifeblood, our members are the backbone. Members and visitors provide the largest source of donated funds for ongoing operations at DBG and are certainly the best public relations ambassadors for the Gardens. Increasing our outreach to better serve will be a primary focus in the months ahead.

Education: One of the most important aspects of DBG is as a resource and class-room for educating visitors, school children and participants about plants, gardening and the environment.

Change, like the oncoming seasons, will occur. We appreciate your support and look forward to better serving you, our friends.

John B. Proffitt, Interim Executive Director



Wildlife find solace at Chatfield Arboretum from the increasing number of people and houses along the foothills. Ten acres of wetlands provide habitat for resident and migratory birds. The midgrass prairie ecosystems are home to many residents including the coyote, mule deer, rabbits, pocket gophers, foxes and more. Through the spring and fall, elk can be spotted searching for their next meal and in the evening, you can hear their lonely cries for a mate. A walk down the riparian trail in the spring reveals numerous migratory song birds hiding in the trees. If you are lucky, you may even catch a glimpse of the elusive Yellow-Rumped Warbler!

Preserving open space is crucial to maintaining wildlife populations because every species requires a specific amount of mating and nesting territory as well as roaming space to search for food. It is not enough to simply protect the individual animal, we must also protect their habitat.



Congratulations to Bill Voeck,
December's Employee of the Month. A
carpenter at the Gardens, Bill does an
outstanding job and is always willing to
help out, without being asked. His
efforts and commitment to the Gardens
help make this a beautiful place to work
and visit. We are fortunate to have him.



Q: What is the only important commercial product, besides ornamentals, contributed by the orchidaceae family of plants?

This month's puzzler is contributed by Harriett McMillan, Horticulture Information Specialist.

A. Vanilla.

Cover Story: The Winter Residents of Chatfield Arboretum

The Great Blue Heron, Ardea herodias, featured on the cover is one of the residents at Chatfield Arboretum that can often be seen wading through the wetland ponds. This beautiful bird is a master at the art of fishing. Its long body and neck are quick and precise when searching for dinner, which usually consists of fish, frogs and crawdads. Large, splayed feet are an excellent adaptation to walking through deep mud in marshes or ponds. Although the Great Blue Heron is a migratory bird, it will spend the winter in Colorado if there is open water to be found.

Many other migratory birds utilize the resources at Chatfield Arboretum. Throughout the spring, bird enthusiasts marvel at such birds as the Wood Duck, Bufflehead, Common Goldeneye, Northern Shoveler, Canvasback and many more. The Bald Eagle is also a common spring migrant that can be spotted searching for an easy meal. Shore birds such as the White-Faced Ibis, Snipe and Virginia Rail are often a challenge to see, but a quite a treat to watch when the opportunity is provided.

Create drama in your garden

The garden takes center stage in "Command Performance," the 1999 Horticulture magazine symposium, designed to give your home and garden star quality. Five international gardening experts will raise the curtain on this two-day series beginning Tuesday, February 2. On Wednesday, February 3, DBG turns the spotlight on local talent in a complementary workshop, "Rocky Mountain Drama." Act one begins with "Stagecraft," in which internationally recognized landscape designer Patrick Chassé reveals how to create dramatic entrances and exits. Next, English gardener and author Anna Pavord choreographs the kitchen garden with "Dinner Theatre." A garden's lead and cameo players take the limelight in "Stars and Supporting Players," with Tony Avent, international plant explorer and nurseryman. Canadian horticulturist Tom Hobbs follows up with tips on combining plants and architectural elements in "No Dress Rehearsal." Chris Woods, executive director of Chanticleer, brings the house down with an original approach to garden ornamenta-

tion in "Set Dressing: Trompe L'oeil and Tropicalismo."

Wednesday's workshop provides the second act to this gardening tour de force.

The curtain goes up on residential garden designer Tom Peace, who focuses on perennials, annuals and ornamental grasses in "An International Cast of Thousands." Next, columnist and gardener Marcia Tatroe goes dramatic with texture, color and form in

"Great Performances." Attention-grabbing containers get rave reviews when author and gardener Rob Proctor focuses on these "Scene Stealers."

The grand finale is begun by Kent Choiniere and Robin Preston, two of the state's most admired floral designers, with "Stage Magic," illustrating the dramatic impact of native plants. Finally, all of Wednesday's speakers will compete in a free-

for-all "design-off," with the audience acting as judges.

The symposium runs from 8 a.m. to 4 p.m. on Tuesday and from 9 a.m. to 3:30 p.m. on Wednesday. Cost for both days of lectures is \$154 for DBG members, \$162 for Horticulture magazine subscribers and \$182 for nonmembers. Cost for Tuesday's program only is \$95 for DBG members, \$99 for Horticulture magazine subscribers and \$109 for nonmembers. Cost for Wednesday's program only is \$68 for DBG members, \$72 for Horticulture magazine subscribers and \$82 for nonmembers. Registration includes all accompanying handouts, refreshments and a box lunch. For more information or to register, call 303-370-8020.



A volunteer scares up some fun at Goblins in the Gardens.

Volunteer Open House

There are so many wonderful ways to enrich your life as a DBG volunteer. Come to the Volunteer Open House on Tuesday, January 19 any time between 10 a.m. and 2 p.m. to learn about the many possibilities. Do you want to garden with DBG's horticulturists, lead tours through Tropical Botanica, greet visitors at the Information Desk, assist teachers in classes or help out at events? The opportunities are nearly endless.

This is your chance to meet with DBG volunteers, recognized across the country for their remarkable contributions to DBG. Staff and volunteers will be available to answer your questions and describe the opportunities. Refreshments will be served. Please call the volunteer office at 303-370-8049 to RSVP.

Return of the natives

In October 1992, Congress set the Rocky Mountain Arsenal aside as a national wildlife refuge. Currently, the Arsenal is managed by the U.S. Fish and Wildlife Service. The Arsenal was once native prairie, home to Plains Indians and native wildlife. Beginning in the mid-1800s, with the arrival of pioneers, the shortgrass prairie was converted to farmland and then into an Army arsenal. As each change in land use took place at the Arsenal, the native plant communities were altered. Invasive species got a foothold in areas disturbed by human activities. Once established, invasive plant species such as musk thistle, damage natural areas by displacing native species, thus eliminating the natural plant communities.

With the overall goal of preserving the natural diversity of the site, the U.S. Fish and Wildlife Service hired Denver Botanic Gardens to help restore the site. The task of restoring the 27 square miles of land at the refuge so that native plants can flourish is an enormous and important undertaking. Therefore, Denver Botanic Gardens began with small steps.

Each summer since 1993, DBG has provided interns to work on the restoration of the nine-acre prairie surrounding the visitor center. The seedbed surrounding the visitor center is full of seeds from undesirable weeds, able to germinate and grow with any disturbance of the soil. These weedy plant species are able to suppress native seedlings. Therefore, we have focused on control and elimination.

Under the direction of Research Department intern Christine Allen, significant progress was made in the prairie during the summer of 1998. After many long days of work and with the help of dedicated Arsenal volunteers, the native prairie



Prairie coneflower (Ratibida columnifera) blooms in abundance in late summer at the

is emerging. In addition to removing invasive species, Christine and DBG interns Michael Castle and Michael Denslow spent many hours transplanting native prairie species and seeding native wildflower and grass species. Over one thousand wildflowers were also grown from seed collected on-site for a fall planting. Wildflower species planted this fall include purple coneflower, plains coreopsis, evening primrose and black-eyed Susan. If you plan to visit the Arsenal next spring be sure to stop by the visitor center and observe the restoration in progress.

Carol Dawson, Research Department Manager



Penstemon angustifolius illustration by Jayme Irvin.

Plant Portrait

Penstemon angustifolius

Wildflower enthusiasts are familiar with the genus *Penstemon*. This beautiful prairie species is native to the western plains including parts of southern Montana, the Dakotas, Nebraska and Colorado. Penstemons are commonly referred to as beard-tongues due to the structural characteristics of their flowers. The flower contains a fifth stamen which is infertile (staminode) and hairy, resembling a bearded tongue.

The blue color of *Penstemon angustifolius* has been described as "more intensely brilliant than any sky." The flowers are prominent during May and June and are usually a mesmerizing blue, although albinos and pink blooms are infrequently found. To observe this plant in its natural setting, visit the Rocky Mountain Arsenal. It can also be found in the Laura Smith Porter Plains Garden at DBG. Recently renovated and revegetated, this area showcases plants from the prairie land surrounding Denver.

Tom Grant, Research Assistant



This gorgeous Cycas circinalis, or fern palm, was a previous resident of the Boettcher Memorial Conservatory and has been successfully replanted in the new exhibit.

Time travelers

An excursion through Tropical Botanica, Denver's newest attraction, is an adventure of discovery. A world of exotic plants provides a view of the tropical forests of today, as well as a look back to the past and the primitive world of non-flowering flora that grew in ancient forests inhabited by dinosaurs.

Numerous cycads contribute their unique presence to this remarkable display. Taking their name from the Greek word cycos meaning palmlike, cycads are easily mistaken for palms, however, they are unrelated botanically. Cycads are often referred to as living fossils due to their historical longevity. Classified as gymnosperms, or plants that bear naked seeds, cycads have survived with relatively little change in their basic characteristics over the past 50 million years. They survive today in tropical and subtropical climates and are the most primitive of the seed-bearing plants.

Several kinds of cycads may be seen within Tropical Botanica when walking up the path from the pool to the bridge crossing the stream. Zamia skinneri, Zamia amblyphyllidia, Cycas revoluta and Ceratozamaia latifolia mingle with palms, gingers and bananas. At the approach to the first bridge a majestic specimen of Cycas circinalis (fern palm) stands guard. This beautiful cycad inhabited the previous Conservatory and has been in the DBG collection for twenty-five years.



Zamia skinneri is a lower growing cycad.

It is estimated to be sixty to seventy-five years old.

In these modern times, with the rapid pace of daily life, it is remarkable to pause and consider the tenacity as well as the subtle beauty of the cycads. This fascinating family of plants reminds us of the antiquity of our world and the evolution of its life forms. They have traveled time through the tropical world.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. My winter project is to make plans on paper to redesign my home's landscape. Any advice on tree placement?

A. Well-placed trees of a suitable species are assets to a home and garden. Trees that are located poorly and are of a species unsuited to the site are often liabilities. Consider the structures on your property and how sun and wind affect the site. Trees planted on the north and west sides of buildings may help buffer the prevailing winds of winter, whereas trees (particularly evergreens) planted on

the south side of buildings, driveways and sidewalks create icy, hazardous conditions that persist following snowstorms.

Site shade trees so that they frame the house, rather than visually dissect it. Use trees to help delineate and create the overhead canopy for garden "rooms." Before you plant a tree, carefully determine whether an evergreen, shade tree or smaller ornamental tree would be most suitable. Perhaps the biggest mistake made by amateur landscapers is underestimating the tree's ultimate size. As a rule

of thumb, plant the tree at least twothirds of its mature height from any structure. Be sure to consider the shade that large trees may ultimately produce and how this will affect your plans for other garden pursuits such as flower and vegetable gardening.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.

lanuary

Ornamental grasses for Colorado gardens, January 13

Kurt Blumel, a nationally recognized authority on ornamental grasses, will present a program on the use of ornamental grasses in Colorado gardens on January 13 at 7p.m. in Mitchell Hall. Kurt is the owner of Kurt Blumel, Inc. of Baldwin, Maryland, and is known as the "father" of ornamental grasses in the landscape. The cost of the lecture is \$10 for DBG members, plant society members or master gardeners. Please make reservations by January 8 by calling the Colorado Greenhouse Growers Association, 303-427-8132. Admission at the door will be \$15 for both members and nonmembers.

Volunteer Open House, January 19

Learn about the many exciting volunteer opportunities at Denver Botanic Gardens during an open house on Tuesday, January 19 from 10 a.m. to 2 p.m. in Mitchell Hall. The meeting will provide interested parties with information regarding the types of opportunities available at the Denver site and at Chatfield Arboretum, southwest of Littleton. Volunteer candidates can also meet current volunteers and staff. Light refreshments will be served. Please call 303-370-8049 to RSVP or with questions.

New members party, January 21

New members are reminded to make your reservation for the new member party in the Tropical Botanica exhibit on January 21, from 6 to 7:30 p.m. Entertainment and refreshments will be provided. Please call 303-370-8091 to RSVP or for information.

Incredible Edibles, January 23, 24

Explore the food plants of the American tropics during "A Taste of the Good Life" on January 23 and 24 when DBG hosts the first of three Incredible Edibles weekends. The event will feature samples from local restaurants, cooking demonstrations, recipes, children's activities and information about all your favorite tropical American foods. Bring the whole family and enjoy the treasures of the tropics including fruits, nuts and chocolate. "A Taste of the Good Life" is open 9 a.m. to 5 p.m. Saturday and Sunday and is free to members or with admission to the Gardens.

KEY FOR CALENDAR

Bold teal type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

FOR MORE INFORMATION: **Gardens events 303.370.8187** Plant Society events 303.370.8097

Don't miss "A Taste of the Good Life" at Incredible Edibles January 23-24 from 9 a.m. to 5 p.m. Free for members.

Blossoms of Light celebration Last night of Blossoms of Light

5

Bonsai Society Meeting

10

3

11

Lettering Your Botanical Art*

12

Colorado Winter: John F Lecture

Cactus & Succulent Soc

17

Mile High Daylily Society meeting

Incredible Edibles: A Taste

of the Good Life 💥

18

Free Day at York Street

Beginning Botanical Illustration in Pencil* (note: this is a different teacher/series than 1/13) Designing Your Garden I: Structural Elements* Hawks and Owls: Colorado's Soaring Beauties* English-Style Cottage Gardens... Here?* 19

Volunteer Open House

Bonsai Society meeting Beyond Beauty: Putting Pla To Work*

Regular black type = Classes (CH) = Classes at Chatfield Arboretum

31

24

25

Ultra Violet African Violet Club mtg.

Vines and Ground Covers* The Best Things Come in Small Packages: Designing a Patio*

26

Secret Gardens of Kyot Charles Mann Lecture

Colorado Native Plant S





- 1-13 Colorado Watercolor Society Show and Sale
 - 1 Sunrise Fitness Walk
 - 2 Senior Early Morning Stroll For Members Only
 - 4 Free Day & Drop-in Tour at Chatfield Arboretum
 - 5 Denver Rose Society Old Garden Roses Display
 - 6 Colorado Water Garden Society Plant Sale
 - 7 Free Day at York Street
 - 8 Sunrise Fitness Walk
 - 9 Sunset Garden Stroll Featuring the Alan Frederickson Jazz Ensemble
- 11-19 DBG Travel Adventure to the Amazon River
 - 15 Sunrise Fitness Walk
 - 17 Big Bugs Exhibit Opens with Big Bugs Preview Party
- 17-20 DBG Travel Adventure to Santa Fe, NM
- 19, 20 Rocky Mountain Bonsai Society Show and Sale
 - 22 Sunrise Fitness Walk
 - 24 New Member Party For Members Only
 - 29 Sunrise Fitness Walk
 - 30 BirdHaus Bash Garden Party and Auction



January

1	York Street Gardens closed 9 a.m. to 5 p.m
	(open for "Blossoms" 6 to 9 p.m.)

- 3 Last night of Blossoms of Light
- 8 Free Day & Drop-in Tour at Chatfield Arboretum
- 9 Education Department Teacher Assistant Training
- 12 Colorado Winter: John Fielder Lecture
- 13 Ornamental Grasses in Colorado Gardens
- 18 Free Day at York Street
- 19 Volunteer Open House
- 21 New Member Party For Members Only
- 23,24 Incredible Edibles: A Taste of the Good Life,
 - Tropical Harvest of The Americas
- 26 Secret Gardens of Kyoto: Charles Mann Lecture
- 29-2/8 DBG Travel Adventure to Belize



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r of Events



February

- 2,3 Horticulture Magazine Symposium
 - 5 Free Day & Drop-in Tour at Chatfield Arboretum
 - 5 Botanical Illustration Show Preview For Members Only
- 6-21 Botanical Illustration Show
 - 24 Bonfils-Stanton Lecture
 - 27 American Iris Society: World of Iris Lecture, Featuring Clarence Mahan

March

- 4 Planting Hope for Endangered Medicinal Plants
- 5 Free Day & Drop-in Tour at Chatfield Arboretum
- 6,7 Incredible Edibles: A Taste of the Wild, Tropical Harvest of Africa
- 10 Eastman Kodak Photography Class
- 11 Design Center Party Botanist Club Level and Above
- 13,14 Denver Orchid Society Spring Show and Sale
- 20,21 Rocky Mountain African Violet Council Spring Show and Sale
 - 24 Bonfils-Stanton Lecture
- 27,28 Colorado Cactus & Succulent Society Show and Sale

d Arboretum • 303.973.3705 • 8500 Deer Creek Canyon Road • Littleton, CO 80128

April

- 2 Free Day & Drop-in Tour at Chatfield Arboretum
- 3 Denver Rose Society: Rose Symposium
- 5 Free Day at York Street
- 7 Behind-the-Scenes Tour—Arbor Circle Level Members & Above
- 8 Out of Africa: Presented by Panayoti Kelaidis and Anne Bean
- 10,11 Incredible Edibles: The Spice of Life, Tropical Harvest of Asia and the Pacific Islands
- 13-27 DBG Travel Adventure to Madeira and Portugal
 - 17 Rocky Mountain Chapter, American Rock Garden Society Alpine Plant Sale
 - 28 Bonfils-Stanton Lecture

May

- 1,2 Ikebana Show
 - 3 Free Day at York Street
 - 6 York Street Gardens Closed
 - 6 Plant and Book Sale Member's Shopping Spree
- 7,8 DBG 50th Annual Plant and Book Sale
 - 7 Free Day & Drop-in Tour at Chatfield Arboretum
- 9 American Iris Society Show (dwarf and medians)
- 16-23 Celebrating Wildflowers Display
 - 19 American Heart Association Keeping Woman Young at Heart
 - 26 New Member Party For Members Only
- 29, 30 American Iris Society Show



1

Gardens closed New Years' Day 9 a.m. - 5 p.m Blossoms of Light open 6-9 p.m. 2

Blossoms of Light celebration Gloxinia Gesneriad Growers mtg.



Ahoté and Kachika, two six-month-old lynx cubs from Prairie Wind Animal Refuge, will visit the Gardens from 6:30 to 8:30 p.m. on Friday and Saturday. Learn about these beautiful and endangered animals during the last few nights of Blossoms of Light.



6

7

8

Free Day & Drop-in Tour Chatfield Arboretum 9

Education Department Teacher Assistant Training Rocky Mountain Orchid

Judging Center

13

Ornamental Grasses in Colorado Gardens

Beginning Botanical Illustration in Pencil*
Beginning Botanical Watercolor*

15

16

High Country Judges Workshop Rocky Mountain African Violet Council Making and Using Your Own

Making and Using Your Own Herbal Medicine Chest*

20

North American Rock Garden Society meeting Herb Society of America meeting Simple Soaps* 21

14

New Members Party for new members only

The Lawn-Free Front Yard*
Keeping the "Big Guys" at Bay:
Tips on Controlling Deer and Elk
Damage to Your Yard*

22

23

Incredible Edibles: A Taste of the Good Life

Herbs for Hearth and Home* Eat Yourself Thin* Bromeliad Workshop* Pruning Basics* (Ch)



27

ly mtg.

Dem Bones, Dem Bones, Dem Garden Bones* 28

African Violet Society meeting Ikebana International meeting Gardeners of America meeting

Beginning Bonsai*
Bluegrass and Other Lawn Grasses*

29

29-2/8 DBG Travel Adventure to Belize

30

Bonsai Society meeting

Pamper Yourself, Part II* Propagation Workshop*





New member party

Come see what all the excitement's about at the new Tropical Botanica exhibit in the newly renovated Boettcher Memorial Conservatory. On Thursday, January 21 from 6 to 7:30 p.m., new members are invited to enjoy refreshments, a special tour and entertainment provided by the George Washington Brass Quintet. Invitations will be mailed to new members or call 303-370-8018 to RSVP or for information.

Green By Nature

A special thank you to the owners of Green By Nature for having given discounts to our upper level members for many years. The shop has now closed and the Gardens would like to wish them well in all of their new endeavors.

'98 tax deductions for members

The amount you can deduct from your income tax depends on your membership and the amount you paid for it. For Gardener, Landscaper and Arbor Circle, all but \$8 of what you paid is tax deductible; Botanist Club, all but \$40; Conservators' Society, all but \$72; and, for Perennial Partners all but \$144.

Denver Botanic Gardens welcomes members to the opening reception of the third annual

Botanical Illustration Show

Friday, February 5, 6 to 7:30 p.m. Mitchell Hall — 1005 York Street

Please RSVP to 303-370-8018 by January 29. Enjoy the opportunity to meet the artists. Botanical illustrations will be available for sale.



DBG TRAVEL ADVENTURES

Explore the best of Alaska!

DBG's 12-day adventure in America's "last frontier" encompasses the best Alaska has to offer. From the glacial waters of the Kenai fjords, to the mountains of Denali, this tour will allow you to explore the state's incredible diversity of flora and fauna. The expedition will include wildflower and wildlife treks on tundra, in

wildlife refuges and boreal forests. Besides the incredible foliage, there are great opportunities to see eagles, moose, bears, sea lions, caribou and whales. Other exciting activities include floating on the Kenai River, a ride on the Alaskan railroad, tours of several spectacular state parks, a visit to Talkeetna, a classic Alaskan bush town and the option to "flightsee" Mt. McKinley and the Alaska range.



Guests will lodge in cozy backcountry cabins and dine on hearty Alaskan fare. The price is \$3995 per person and includes all lodging, land/water transportation, most meals, activities and guiding services. This trip is rated "moderate" in activity level. A \$400 deposit is due now, with final payment by April 2. The trip is limited to 15 participants.

Call Pam Rathke, Travel Coordinator at 303-370-8051 to reserve your place on this scenic, wildland adventure.



On Thursday, November 19, nearly 400 party-goers enjoyed a night of tropical sounds, smells and intrigue during the Tropical Escapade gala. Greeted by fire dancers and glowing tiki lamps, guests walked into a tropical paradise and became the first to enter the newly renovated Boettcher Memorial Conservatory. After a formal ceremony and dedication, guests strolled among the palm trees while sipping tropical drinks and enjoying catered food from local restaurants. The enchanted evening was generously sponsored by Northern Trust Bank of Colorado. Entertainment was provided by Polynesia-Pacifica Foundation of Colorado and The Hazel Miller Band.

Perennial Friends

DBG's Board of Trustees is happy to announce Perennial Friends, a special way to recognize those members and friends who have included the Gardens in their estate plans. The sole purpose of Perennial Friends is to honor and recognize those who complete a bequest, trust or insurance gift to benefit DBG.

Over the years, DBG has received many generous bequests from friends and members of the Gardens. These bequests are already enhancing the programs at DBG and are providing gifts of lasting support that are vital to the quality of programs we are able to offer our members.

The board is offering special Founding Membership status to those who choose to join the Perennial Friends before December 31, 1999. Whether you have already made provisions for the Gardens or you're just considering including DBG in your will, please call Jennifer Darling at 303-370-8027.

Memorials and Tributes

In memory of James E. Stokes
Mr. and Mrs. Ib Falk Jorgensen
In memory of Jonathan Brock
Prue Grant
In honor of Carol Schutz
Nancy Rucker Ankelen

Thank you to our "Presenting" Corporate Sponsors!

The last half of 1998 was filled with splendid events at DBG and the support of our Presenting Corporate Sponsors helped immensely to enhance the success of each event. Please join us in thanking these gracious sponsors:

Security Life of Denver Insurance
Co., Presenting Sponsor for the 1998
Garden Concert Series; Bank of Cherry
Creek, Presenting Sponsor for the 1998
Sunset Garden Strolls; Northern Trust
Bank of Colorado, Presenting Sponsor
for Tropical Escapade; New Century
Energies Foundation, Presenting
Sponsor for 1998 Blossoms of Light;
Secure Horizons, Presenting Sponsor of
Senior Night at Blossoms of Light; and,
The Denver Post, Events Newspaper
Sponsor.

Gardens win prestigious national grant

Denver Botanic Gardens has been awarded a \$112,500 grant from the Institute of Museum and Library Services to support general operating expenses. The Gardens was one of only 202 museums in the nation selected from the 1,061 grant applications. The only other Colorado cultural institution to be honored with the full amount was the Cheyenne Mountain Zoo in Colorado Springs.



Cowboy's delight at the Arsenal

Of the many plants found at the Rocky Mountain Arsenal, one has always been a welcome sight to cowboys. After a long winter of tending cattle on the plains, this early sign of spring shows up in gravely soils, slopes and in openings in the forests. The winter-worn cowboy will see his grazing land turn orange because of *Spaeralcea coccinea* (cowboy's delight or red false mallow) which starts blooming in April and continues all the way to August. The plant creates colonies by expanding with creeping roots. Unfortunately for our cowboy, it is also a sign of an overgrazed pasture.

Cowboy's delight has been used by indigenous peoples. Dakota Indians used the plant chewed into a paste to prevent scalding. The pueblo people of New Mexico have used it to develop a cast for broken bones. The plant has a common name of "sore-eye poppy" by the pueblo peoples, but that name does not indicate a medicinal remedy. If you run your hands over the plant or pick the buds or fruits, your hands will be covered with scratchy hairs. For the plant, this prevents desiccation in a very dry climate. However, for humans, it means don't touch your eyes after harvest!

For more information about plants found at the Arsenal, visit the Library. During the planting season, this plant can be found in many local nurseries.

Sources used for this article are found in the Helen Fowler Library at DBG:

Dunmire, William W. & Gail D. Tierney. Wild Plants of the Pueblo Province: Exploring Ancient and Enduring Uses. Santa Fe: Museum of New Mexico Press, 1995. QK 99 .A1 D84 1995 Farrar, Jon. Field Guide to Wildflowers of Nebraska and the Great Plains. Lincoln, Neb.: Nebraskaland Magazine & Nebraska Game Commission, 1990. QK 172 .F3F8 1990

Flora of the Great Plains. Lawrence, Kansas: University Press of Kansas, 1986. QK 135



The Gardens of Kyoto

Travel to the Gardens of Kyoto with noted photographer, Charles Mann, on Tuesday, January 26. The slide presentation provides a Westerner's view of the exquisite gardens of this fabled Japanese city and features Mann's personal anecdotes on his experiences while visiting.

Kyoto is the epicenter of Japanese culture where the essences of gardening style remain today as they were hundreds of years ago. The abstract beauty of the Japanese garden as art in and of itself stands alone, making Kyoto a photographer's paradise.

In The Gardens of Kyoto, viewers take a visual journey to experience a redefinition of beauty, style and expression that has much to say about the new directions that garden design is destined to take in the future.

The presentation begins at 7 p.m. in Mitchell Hall. The cost is \$8 for DBG members and \$12 for nonmembers. Please call 303-370-8020 to obtain additional details or to register.

Assist and be rewarded

Offer your assistance and the rewards are many. The adult education program is searching for additional teaching assistants for the winter and spring classes. If you enjoy DBG's adult classes and are willing to help a teacher, you can be trained to assist and take the class free of charge.

A mandatory training session, covering everything from the inside story on copying machines to the idiosyncrasies of slide projectors, will be held on Saturday, January 9 from 10 a.m. to noon in Mitchell Hall. If you're interested in assisting, please call 303-370-8019 to register.

F55 1986

"A Colorado Winter"

Experience the striking beauty of "A Colorado Winter" through the eyes of renowned nature photographer John Fielder on Tuesday, January 12 at 7 p.m. in Mitchell Hall. A back-country odyssey into Colorado's most formidable weatherscape, "A Colorado Winter" is based upon Fielder's latest book which features the winter mountaineering journals of veteran outdoor writer John Fayhee.

Representing 15 years of the best of Fielder's winter photography, "A Colorado Winter" is a celebration of color, form and light. "I recognized the essential aspect of form in the winter landscape," Fielder said. "A line of ski tracks in the snow, the shape of a cold winter moon and the texture of fresh snow draped on spruce trees." Although Fielder sought to discover shape rather than color, his photographs reveal the dramatic hues of the seasons.

The program is \$8 for members and \$12 for non-members. To register, please call 303-370-8020.



Photographer John Fielder at work during a beautiful Colorado winter.

Take kids to the tropics

Love the new Tropical Botanica exhibit? Share your excitement for the lush warmth of the tropical forest with students by becoming a theme tour guide. Theme tours are a special program created for third to seventh graders. In this program, students learn about tropical forests from school activities before and after the trip, on a walking tour of the exhibit and through classroom exploration activities. Guides, who lead the tours and facilitate classroom discovery, play a vital role.

If you enjoy working with kids and smile when you talk about plants, we'd be happy to train you to become one of our theme tour guides. Tours are on Tuesday and Thursday mornings, February through April, and we ask all guides to commit to leading five tours.

Training begins soon. Please call Lisa Castle at 303-331-5777 to sign up or for more information.

"A Taste of the Good Life"

Chiles and chocolate, avocados and allspice, pineapple and papaya! Explore the food plants of the American tropics January 23 and 24. DBG is celebrating

tropical plants this year with three Incredible Edibles weekends, starting with the luscious bounty of the tropical Americas.

Packed full of good things, "A Taste of the Good Life" will feature samples from local restaurants, cooking demonstrations, children's activities, information about all your favorite tropical American foods and recipes to try. Bring the whole family.

"A Taste of the Good Life" is open 9 a.m. to 5 p.m. Saturday and Sunday and is free to members or with admission to the Gardens. Whether you have a passion for fruit, are nuts about cashews or are sweet on chocolate, you won't want to miss this event.

Mark your calendars now for the other Incredible Edibles weekends, "A Taste of the Wild," featuring the foods of tropical Africa on March 6 and 7 and "The Spice of Life," focusing on the foods of tropical Asia on April 10 and 11.

Internship reminder

Students interested in applying for summer internships in applied horticulture are reminded that all application materials are due February 21. Please send inquiries and applications to Paula Ogilvie, Adult Education Specialist. Applications can also be downloaded from our website, http://www.botanicgardens.org and faxed to 303-370-8196.

Return service requested

Non-Profit Org. U.S. Postage PAID Denver, CO Permit No. 205

DON'T MISS...

DBG selects new Executive Director

After four years as Director of Fairchild Tropical Garden in Miami, Florida, Dr. Brinsley Burbidge will feel right at home in the Gardens newest exhibit: Tropical Botanica. Dr. Burbidge has been selected after a six-month, nationwide search to succeed Richard Daley as the Executive Director at Denver Botanic Gardens, beginning his tenure February 1, 1999.

Prior to serving as Director of Fairchild Garden, Dr. Burbidge spent eight years in various senior positions at the Royal Botanic Gardens in Kew, England. A native of England and truly a distinguished plantsman, Dr. Burbidge has



Dr. Brinsley Burbidge will serve as DBG's new Executive Director. He previously served as Director for Fairchild Tropical Gardens in Florida.

been a teacher, author and expedition leader throughout his career. Dr. Burbidge and his wife, who is also a horticulturist, look forward to pursuing a lifelong interest in mountain and high plains plants of the Rocky Mountain region. We look forward to sharing more of Dr. Burbidge's impressive credentials in the February issue of *Green Thumb News*. Welcome Dr. Burbidge to Denver and DBG!

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky

Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-Sept.

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

 Tues. and Thurs., 1 to 3 p.m.

Plant*talk* (24-hour) 1-888-666-3063

recorded plant information
Gift Shop 303-331-4009
Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

Offices

Mon. through Fri., 8 a.m. to 5 p.m. Address changes 303-370-8060 Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049 **Chatfield Arboretum** 303-973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Blue heron photo courtesy of Chatfield Arboretum.





From the Top

News from the Executive Director

Though it is difficult to convince my friends in Florida, where the temperature is a warm 84°F, I'm tremendously excited about the move to Denver. Don't get me wrong. I love the tropics. I'm passionate about palms, bromeliads, aroids and tropical fruit and I've loved my four years learning about plants from hot, humid climates.

I also love plants from higher, colder regions and have spent as much of my free time as I could in the last 40 or so years in the mountainous regions of the world. I can't wait to face the challenge of growing a whole new range of plants and also look forward to revisiting wild Colorado and discovering many new walks and plants.

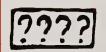
Of course plants are only part of the picture as far as my enthusiasm is concerned. During a December visit, I met and exchanged ideas with many members of the excellent Board and I am delighted to find a great commitment to expanding the role the garden plays in the local, national and international community. I also met with many staff members and witnessed their professionalism and dedication. When I spoke with many volunteers, I heard of their devotion to the institution they love as well as their desire to help in so many ways. All of this contributes to my certainty that the Gardens will become an even more significant part of the Denver community and beyond.

I first visited Denver Botanic Gardens in 1982 to speak at a conference on mountain plants and developed a great respect for DBG as a progressive institution. A lot has changed since then but the Gardens' commitment to excellence endures. I'm thrilled to be playing a role in continuing that pursuit of excellence, building on the outstanding leadership that Rick Daley and John Proffitt have given to the Gardens.

Brinsley Burbidge, Executive Director



Congratulations to January's Employee of the Month, Anita Livingston, Corporate Development Associate. Anita's hard work has tremendously increased financial support and awareness of the Gardens by area businesses. Anita ensures that corporate events run smoothly by informing and involving others. She always manages to smile and keep a positive attitude, even when things are hectic.



???? Plant Puzzler

Q: What is another common name for Xylem, the "hollow tubes" in plants that carry water from the roots to the leaves, stems and flowers?

> This month's puzzler is contributed by Paula Ogilvie, Interim Education Director.

> > booW .A



The Wild Side

News from Chatfield

Three cheers to the volunteers!

Chatfield Arboretum would not be the facility it is without our volunteers. When the Arboretum opened, volunteers used their talents to help renovate the historic buildings which are still in use today. Volunteers help plant, weed and prune the gardens. Fundraisers such as the Pumpkin Festival, Tree-mendous and honey sales are only possible with their help. Also, very few school groups would be able to use the Arboretum as a field trip site if it were not for our corps of volunteer Naturalist Guides.

Naturalist Guides spend four weeks training to learn about native plants, animals and ecosystems. This workshop is just the beginning however, because volunteers also attend meetings every month to learn from experts regarding all areas of Colorado natural history. Guides at the Arboretum have fun working and learning together. The unique combination of backgrounds allows these guides to share a world of information with the students that they teach. Leading guided tours for students of all ages is a rewarding experience that can never be duplicated.

If you are interested in learning how to be a Naturalist Guide, our training workshops will be held on Tuesdays and Wednesdays during March from 9 a.m. to noon. For information, contact Chatfield Arboretum at 303-973-3705.

Sue Boersma, Naturalist Chatfield Arboretum



The delicious honey from Chatfield Arboretum is just one of the many fundraising projects led by volunteers.

Cover Story: Botanical Illustration Show

Botanical illustration is an exacting art form that combines science with art. The renderings must exhibit scientific accuracy and be true to scale. Working with live specimens, the botanical illustrator depicts all of a plant's identifying features while using color, shading and composition to create works of exquisite beauty.

DBG will host its 3rd Annual Botanical Illustration Show to educate the public about botanical illustration as an art form. This year's show will include more than 150 pieces which have been reviewed and accepted by a panel of independent judges. It will take place February 6 through 21, in Mitchell Hall from 9 a.m. to 5 p.m. and will then travel to the Colorado Springs Fine Arts Center for display from March 13 to May 31. This is one of few juried shows for botanical illustrators. Artists from all over the country have been selected to participate in the show and many of their works will be for sale. The show is free to members.

1999 Bonfils-Stanton lecture series



Felder Rushing to discuss "yard art."

From the perennial garden to environmentally sensitive design, the 1999 Bonfils-Stanton lecture series will explore the diversity of gardening. Join DBG at 10 a.m. or 7 p.m. on the fourth Wednesday of February, March, April, September and October to enjoy these informative programs.

Gardening expert Felder Rushing will present "Yard Art: The Good, the Bad and the Unbelievable," to begin the series on Wednesday, February 24. Whether one accessorizes their garden with a commissioned piece of art or "objet trouve" (found object), one's garden is a perfect venue for personal expression. Rushing's folksy style, bottom-line observations, anecdotes and wry humor will entertain, enlighten and encourage gardeners to express themselves. Rushing is an eighth-generation gar-

dener who has written and photographed for nearly every garden magazine, including Garden Design, Fine Gardening, Better Homes and Gardens, National Geographic, Southern Living and many others. He is the monthly on-line columnist for the on-line Garden Escape forum and has authored several award-winning garden books, including Passalong Plants and the upcoming Better Homes and Gardens Junior Garden Book. He is also known to gardeners due to his national radio program, numerous TV appearances and lectures throughout the country.

The second program, scheduled for March, will feature plantsman Dan Hinkley on exciting plant combinations; in April, garden writer Ann Lovejoy will discuss how to use plants as architectural design elements; in September, floral designer Pauline Runkle will demonstrate dramatic flower arrangements; and in October, enthnobotanist Dr. Paul Alan Cox, director of the National Tropical Botanic Gardens and a modern day plant hunter, will discuss his search for tropical medicinal plants.

The series has been generously supported by the Bonfils-Stanton Foundation since 1987. Lectures are in Mitchell Hall. Please register by calling 303-370-8020. Tickets are \$8 for members, \$12 for nonmembers. A discount of \$35 for members and \$45 for nonmembers, is offered to those registering for the whole series. The Gardens' Gift Shop carries the books of all published guest speakers who will be available after the program to autograph copies of their books.



Gift Shop dedication

Members of the Gift Shop Board, the Associates Board, volunteers who have worked in the Gift Shop and DBG staff attended a reception on October 28th for the dedication of two plaques commemorating exceptional volunteer contributions. The first was presented by the Trustees in recognition of the dedicated volunteers who have provided more than \$2 million to DBG through the Gift Shop. A second plaque was presented by the Associates in honor of Mary A. Secrest who served as the first Gift Shop manager from 1969 to 1989.

A garden of memories

DBG would like to commemorate the memory of Kim Sterne and thank his family for contributing to the development and maintenance of the Kim Sterne Survival Garden at Chatfield Arboretum. This garden contains native plants that have been used for foods, medicines and textiles for hundreds of years. Kim passed away 20 years ago this month.

Palms away!

Imagine a typical winter day: leafless trees, brown lawn, patches of snow on the patio. Pretend that you're far away on a holiday to an exotic port of choice. Imagine the earth-toned landscape as your plane escapes the plains and then descends onto a lush, emerald, tropical carpet dominated by the stately palm. Ocean breezes, frozen drinks, and of course, the gentle sway of a hammock tied between palm trees.

Maybe this holiday is a dream. But, why not escape to Tropical Botanica where the landscape is green and exotic?

No plant identifies an exotic landscape quite like a palm tree. As a group, palms hold the record in the plant world for producing the largest seed (20kg), the largest flower (the inflorescence has 10 million flowers) and the longest leaf (25.11m long). Tropical Botanica showcases a wonderful collection of palms, each with distinguishing traits that are beautiful to view.

Some of the taller trees are the foxtail palms (*Wodyetia bifurcata*). This palm, unknown to horticulture until its discovery in northern Australia in the mid-1980s, is now in demand as an ornamen-

tal. The sealing wax palm (*Cyrtostachys lakka*) from Borneo has bright red canes and stems which contrast with the deep green leaves. Another of the taller palms is the fishtail palm (*Caryota mitis*), named for the leaf's resemblance to the tail of a fish. Ruffled fan palm (*Licuala grandis*) has long, graceful stems with a round leaf that almost forms a complete circle. *Coccothrinax cirnata* from Cuba is commonly called the old man palm because of the brownish gray mat of hairs on the trunk. The triangle palm (*Neodypsis decaryi*) has a three-sided trunk and is blue-green in color

Several palms in the exhibit are now rare or are endangered in their natural habitat. These include *Pelagodoxa henryana* from the Marquesas islands, the bottle palm (*Hyophorbe lagenicaulis*) from the Mascarene islands, and *Johannesteijsmannia altifrons* from Peninsular Malaysia and southern Thailand. All are threatened due to loss of habitat and logging.

The collection also contains palms with long, sharp spines such as *Aiphanes corollina* and *Salacca zalacca* with short, thick, golden spines. *Verschaffeltia splendida* features thin spines and black stilt roots which appear to elevate the plant out of the ground.



Tall and graceful, Wodyetia bifurcata, foxtail palm, is a prominent specimen in Tropical Botanica.

Tropical Botanica has an extensive collection of forty or so different palms. They are endlessly fascinating in their beauty, adaptation and usefulness to man and may even help to fulfill your need for a tropical holiday!

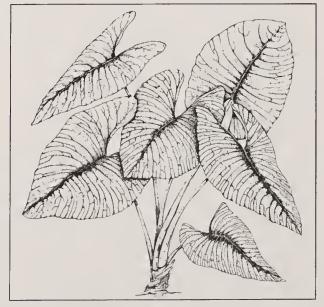
Julie McIntyre, Horticulturist

Plant Portrait

Alocasia guttata var. 'Imperialis'

The pathways of Tropical Botanica are bordered by numerous exotic tropicals with outstandingly beautiful characteristics. One of the most eyecatching is *Alocasia guttata* var. 'Imperialis'. In a word, this plant may be described as gorgeous! This rare species from Borneo has bluish-grey leaves with definitive blue-black shading along the midrib and main veins that give the leaves an embossed or quilted look. The backside of the leaves are a dark burgundy color.

A Russian Czar was so impressed by this plant that he requested the botanist N. E. Brown to name it after him. Other members of this genus, all from tropical Asia, contribute their showy and distinctive beauty to the ground plantings of Tropical Botanica. *Alocasias* are becoming popular as houseplants due to their unusual shapes and colors as well as their ease of culture. They will thrive in the lower light conditions of most households.



Alocasia guttata var. 'Imperialis' drawn by Jayme Irvin.

Off to the showers

Every unseasonably warm day of February tantalizes us with the promise of spring. Even though we yearn for the labor of outdoor gardening, this is the opportune time to give attention to your indoor plants since once spring arrives, less thought is directed toward the humble houseplant.

The short days of winter are slowly lengthening and the gradual increase of light will encourage more active growth from houseplant foliage and flowers. When new growth begins to appear, regular feeding should begin. Water-soluble fertilizers are the easiest to use. Read labels thoroughly before using. Fertilize at half strength for several weeks until the plant is in active growth.

Continue to check the plant's moisture before watering. As a rule of thumb, the soil surface should go slightly dry between waterings. When you do water, water thoroughly and avoid having excess water remain in a tray or decorative container for any length of time. As days lengthen and temperatures warm, plants will use more water.

An occasional shower will help clean the surfaces of leaves. The accumulation of dust not only spoils the appearance of foliage, it blocks the pores of leaves and screens out light so that proper growth is inhibited. If plants are too large to carry to a sink or shower, a sponge with clean water can get the job done. Removing damaged or aged and dull-looking leaves will also improve the looks of a plant. With just a little attention, your indoor garden will be ready to carry on beautifully through the busy spring season.



The dry winter months are a good time to provide indoor houseplants with a bath or shower to remove dust and debris.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. Any tips for keeping floral arrangements fresh?

A. Cut flowers, whether from the florist or the garden, will last much longer if a few simple guidelines are followed. Hopefully, you've received or chosen flowers that are fresh. They should be showing good color, yet not be fully open. The secret to prolonging blossom life is to change the water daily and keep the arrangement in a cool location away from direct light. Refrigerate the flowers at night, if possible. Commercially prepared floral preservatives are useful to help nourish the blossoms and deter the

growth of bacteria. A homemade version consists of one part lemon-lime soda to three parts water, with a quarter teaspoon of household bleach added to each quart. Be sure to remove flowers from the arrangement as they fade and re-cut flower stems every few days.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.



A few simple tricks can extend the life of your floral arrangement significantly.

February

Botanical Illustration Preview, Feb. 5

Members are invited to opening night of the Botanical Illustration Show on Friday, February 5 at 6 to 7:30 p.m. in Mitchell Hall. Preview and purchase original works of art by outstanding botanical illustrators from across the country. Free to members. Please RSVP by calling 303-370-8018 by February 1.

Illustration classes, Feb. 6, 7, 8, 20, 21, 22

Two botanical illustration experts from New York Botanical Gardens will teach a series of master classes. On February 6, 7 and 8, Mindy Lighthipe will teach "Drawing in Graphite," and on February 20, 21 and 22, Katie Lee will instruct a class on "Colour." Lee will also present a slide lecture, "The Botanical Artist Today," at 7 p.m. on February 19 in Mitchell Hall. To register, please call 303-370-8020.

Garden and Home Show, February 6 to 14

The 40th annual Colorado Garden and Home Show in the Colorado Convention Center will showcase landscape design ideas and home improvement products. Show hours are 10 a.m. to 9 p.m. on Saturdays; 10 a.m. to 6 p.m. on Sundays; Monday through Friday, 3 to 9 p.m. Tickets are \$8. Children 12 and younger are admitted free of charge. Call 303-932-8100 for information.

The world of iris, February 27

Clarence Mahan, President of the American Iris Society, will give a free program entitled "The World of Iris" from 2 to 4 p.m. in Mitchell Hall. Mr. Mahan will provide a general introduction to the many varieties of iris. For information, call 303-797-8341.

Landscaping Symposium, March 6

Landscaping experts from the Jefferson County Horticulture Extension will host a special workshop on how to "boost your landscaping IQ" on March 6 from 9 a.m. to 3:30 p.m. at the Jefferson County Fairgrounds. The price is \$46 for members. Call 303-370-8020 to register.

Free photography class, March 10

Join DBG and Eastman Kodak on March 10, 7 to 8 p.m. in Mitchell Hall for a class presentation on "How to take pictures." This class will prepare you for the spring season photo opportunities. For information, or to register, please call 303-370-8091.

KEY FOR CALENDAR

Bold red type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

Regular black type = Classes (CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION: **Gardens events 303.370.8187** Plant Society events 303.370.8097 SUNDAY

1

MONDAY

2

Horticulture Magazine S "Command Performance"

TUESDAY

Bonsai Society meeting Garden Design with Native: and Perennials*

8

Something Old, Something New, Renovate a Garden Especially for You* Creating a Cutting Garden*

Colorado Cactus & Succ **Society meeting** Tropical Botany* Kitchen Garden*

14

15

16

Bonsai Society meeting The Seven Principles of Wa Gardening*

21

Computer-aided Home Landscaping*

22

Ultra Violet African Violet Club meeting

23

Colorado Native Plant Society meeting

28

Denver Opera Company

1-3 p.m. in Mitchell Hall Natural Soap*















Plan now to plant later. Members are invited to visit DBG's library this month to review the large collection of plant and seed catalogs. Orders placed now should be filled in plenty of time for early germination and spring planting.





Santa Fe!

Gardens, History, Art & Culture
June 17-20

This early summer weekend tour of northern New Mexico will certainly reveal why the state is known as the "Land of Enchantment." The tour will explore the lovely Spanish, Mexican, and Native American influences through visits to museums, churches, galleries and gardens. Along the way guests will enjoy the beautiful New Mexico landscape and cuisine. Judy Sellers, landscape designer, author and photographer, will accompany the tour as a special local host. DBG tour leaders are Barbara Baldwin and Knobby Brown. Call Pam Rathke at 303-370-8051 for more information!

Benefits of membership

Your membership card is your passport to many winter and spring flower shows, displays and special events at DBG.

Come in for a quick look or spend some time walking through the Gardens.

Other membership benefits include:

- Free entry to view professional illustrations at the 3rd annual Botanical Illustration Show February 6 through 21 from 9 a.m. to 5 p.m.
- Free entrance to the Incredible Edibles program featuring foods from the tropics on March 6 and 7. Learn more about the resources that come from the tropics and also try free samples of food products.
- Unlimited access to the Helen Fowler library where you can browse through more than 300 seed catalogs or the many current periodicals. With your membership card you may borrow books, videos, and even CD ROM's to enjoy at home. February is a great time to improve your gardening skills the easy way before the planting season begins!
- Discounts on classes offered by DBG. Call the Education office at 303-370-8020 for more information.

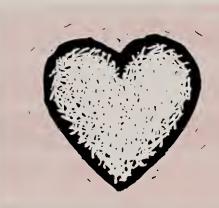
Be sure to look through the calendar pages in the center of each issue of the *Green Thumb News* for events which are free to members — marked with a small logo symbol ...

'98 tax deductions for members

The amount you can deduct from your income tax depends on your membership and the amount you paid for it. For Gardener, Landscaper and Arbor Circle, all but \$8 of what you paid is tax deductible; Botanist Club, all but \$40; Conservator's Society, all but \$72; and, for Perennial Partners all but \$144.

Cheers to our Blossoms of Light sponsors

The 1998 Blossoms of Light brought a "gazillion" watts of holiday cheer and helped staff, members and visitors alike to get into the holiday spirit. DBG would like to thank the Corporate Sponsors for helping to bring this event to you. The title sponsor for the second year in a row was New Century Energies Foundation. Secure Horizons and Centura Health sponsored the first-ever Senior Night at Blossoms of Light which attracted more than 4,500 guests to the Gardens. The presenting sponsor of the 11th Annual Teddy Bear Teas was Robinson Dairy Inc. with support from Celestial Seasonings and *Colorado Parent*. KM Concession Fork Lift was generous enough to help DBG with the perilous and beautiful decoration of many enormous trees. RSC-Rental Service Corporation and the Blossoms of Light media sponsors, KOSI 101 and *The Denver Post*, also provided much appreciated support. Thank you!



Pave a path for your Valentine

Give a gift to your loved one that will last a lifetime. Denver Botanic Gardens is offering its members and friends a chance to purchase named bricks in the Romantic Gardens. For information, contact Kristin Decker at 303-370-8030.

Interpretive program

A special thanks to Adolph Coors Foundation for providing the funds to support the Interpretive Program in the Tropical Botanica exhibit. The interpretive information in this exhibit allows visitors to fully enjoy their tropical experience while learning about plants, their importance and usefulness to all of us.

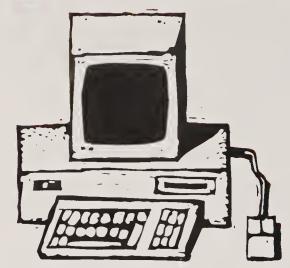
Memorials and Tributes

In memory of Abe Luper
Kelley Kirkendall
In memory of Elton Parks
Ib Falk Jorgensen
In memory of James E. Stokes
Mr. and Mrs. Walter C. Emery
In memory of Henry J. Novotny
Telephone Pioneers of America
In honor of Edward Connors
Mr. and Mrs. James B. Kurtz
In honor of Panayoti Kelaidis
Mr. and Mrs. James B. Kurtz
In memory of Hubert L. & Helen R. Barbe
Martha B. Cordova



Denver Botanic Gardens drew thousands of visitors in December to view the magic of more than 340,000 lights on display during the Blossoms of Light holiday celebration.





The Gardens go on-line

If you'd like to visit the Gardens on the snowiest day in February without leaving the comfort of your home, check out Denver Botanic Gardens web page. Located at http://www.botanicgardens.org, the web page was first created in June 1998, courtesy of Skyweb, Inc. By the end of 1998, the site was improved significantly and can access at least twenty interlinked pages with information on most aspects of the Gardens. There is even an external link to Planttalk Colorado®, the on-line version of the recorded Rocky Mountain gardening information service, and other external links to DBG's co-creators of Plant Select®, Colorado State University and the Green Industries of Colorado.

Browse around the site by clicking on highlighted and/or underlined words. This function will connect you to other parts of the web page. To return to where you came from, or the home page, click on the "back" button on your browser. You can view the Gardens' events calendar, articles from the *Green Thumb News*, renew your membership, review the Library's new book list or read about the happenings in the Mycology Department. Log on and try out the Gardens' first steps into the cyberworld.

Amazon for educators

Rainforest ecosystems: what better way to learn about them than to explore them in person? This June, teachers will have the chance to do just that and explore steamy jungles and broad rivers, exotic plants and stunning birds, local villages and modern cities, all near the great river in Peru.

The Amazon River Tour for Educators is the first DBG trip designed specifically for educators. Beyond fantastic memories and first-hand rainforest experience, participants will return home with two hours of graduate credit towards re-certification and usable curriculum materials. DBG educators, working closely with the tour providers, ensure that teachers will leave not only knowing what a heliconia is, but also how to apply that knowledge to their



classrooms and the Colorado educational standards. Education Assistant Lisa Castle adds, "We're very excited about this opportunity to bring teachers to the rainforest and then bring the rainforest back to classes all over the state."

For more information about The Amazon River Tour for Educators, contact DBG Travel Coordinator Pam Rathke at 303-370-8051.

Planting hope for endangered herbs



Since many native medicinal plants grow in the wild, the threat of losing them is always present. Between the loss of natural habitats and the extraordinary demand placed upon them from the herbal products industry, some of these plants are at risk for becoming endangered or even extinct.

Medical herbalist Tammi Hartung and clinical herbalist Shelley Torgove will address these issues in a slide presentation on Thursday, March 4 at 7 p.m. in

Mitchell Hall. In addition to discussing how these herbs are used and how we can protect them, Tammi and Shelly will explain how they can be grown in a home garden.

Proceeds from the event will be donated to United Plant Savers, a nonprofit educational group dedicated to preserving native medicinal plants, and to the Gardens, which promotes understanding and research in plant propagation. The cost of the program is \$8 for members and \$12 for nonmembers. To register, please call 303-370-8019 or 303-370-8020.

Community Gardeners, it's time!



Look for your registration packet to arrive in the mail around February 12.

The Community Gardens will open for the season on March 27.

Orientation sessions:

(you must attend one)
Thursday, March 25, 6:30 to 8 p.m.
Saturday, March 27, 10 to 11:30 a.m.
Please indicate your choice of orientation session on your registration form.

Intern applications due

Students interested in applying for the 1999 Summer Internship Program in Applied Horticulture are reminded that all applications are due February 21. The paid 10-week internship allows students to work side-by-side with Gardens staff, while providing the opportunity for study and individual research.

Completed application materials should be mailed to Paula Ogilvie, Adult Education Program Specialist at the Gardens or faxed in at 303-370-8196. For on-line information, visit DBG's web site, http://www.botanicgardens.org.

New intern program helps future teachers

Starting this spring, DBG will be a site for interns seeking experience in youth education. The Gardens will work with interns to design a program which fits the interns' personal goals and schedules while helping DBG towards its educational goals. Internships are available in three main areas: youth education program management, curriculum development and program evaluation.

Program management interns work with the seasonal tour program and help to manage volunteers, organize program materials and guide school groups. Curriculum development interns create new materials linking DBG activities to Colorado standards. Program evaluation interns review existing programs, collect input from everyone involved and suggest improvements.

All three internship areas correspond with undergraduate and graduate-level education studies and offer interns the chance to apply what they learn in their coursework to a real educational setting. Teaching at an informal science center, such as the Gardens, offers innumerable challenges and rewards. Internships provide yet another way that the Gardens strives to meet the challenges and share the rewards.



Many food resource products including fruit and coffee will be featured at the March Incredible Edibles program.

Take a taste of the tropics!

Explore the taste sensations of the tropics as the Incredible Edibles series continues. Following "A Taste of the Good Life," which featured the fruit of the tropical Americas in January, this next series will focus on tropical Africa with "A Taste of the Wild," on March 6 and 7 and tropical Asia with "The Spice of Life" on April 10 and 11.

If you've been curious about carombola, maniacal over mangos or crazy about coffee, you'll want to attend these fun-filled and informative events which feature samples, exhibits, sales booths, demonstrations and children's activities.

Incredible Edibles events run from 9 a.m. to 5 p.m. each day and are free to members or with a paid admission to the Gardens.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

Return service requested

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Visit Taste Buds — a mobile snack cart — in the Lobby Court for a refreshing snack. The menu includes sandwiches, fruit, muffins, desserts and a variety of hot and cold beverages such as tropical smoothies, espresso, cappuccino and caffe latte. Taste Buds is open daily from 10 a.m. to 3:30 p.m.

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky

Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-Sept.

General information 303-331-4000 303-370-8032 Dr. Green plant information 303-370-8068

Tues. and Thurs., 1 to 3 p.m.

Planttalk (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

Offices

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Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Bleeding Heart illustration by Priscilla Baldwin.





From the Top

News from the Executive Director

The first order of business is to acknowledge the terrific work that John Proffitt has done as Denver Botanic Gardens' Interim Director. When John took on this job in July of 1998, he faced the daunting task of opening the Romantic Gardens, Tropical Botanica and the West Pond not only on time, but within budget. He succeeded on all counts! John also brought a renewal of team spirit to the staff, a new vigor to our community relations and a welcome introduction of several methods and procedures that will last long after he officially says good-bye to the corner office.

The millennium, minus one, that we are just beginning finds us preparing as never before for the rigors of the competitive Denver marketplace. Happily, our new Executive Director, Brinsley Burbidge, brings not only marketing savvy but also a deep understanding of the role that discipline plays in the daily life of an institution such as Denver Botanic Gardens.

More than ever, DBG relies on smart marketing to boost attendance and improve our market share. In candor, we either market well or face an uncertain future.

Marching hand in hand with our marketing emphasis is our intensive thrust for dollars from the community. As you may know, we have added Planned Giving to our package of development funds — from membership, corporate and foundation grants and private gifts. We hope that this will serve as a gauge of how far we can extend our ambitions, and yours, each year.

Our annual report, which will be completed later this spring, will detail a successful 1998. We plan to use this outstanding performance as a benchmark for the years ahead.

Charles W. Cleworth, President Board of Trustees



Employee

of the Month

Cheryl DeVincentis in the Education department is our February employee of the month. Cheryl is recognized for her willingness to help, no matter what the task or how chaotic, by taking care of every detail. Cheryl always displays a positive attitude with an ever-present smile. As described by the staff who nominated her, "we need more Cheryls at the Gardens!" Congratulations Cheryl.



Q: What tropical spice played a part in pirates becoming known as buccaneers?

This month's Plant Puzzler was contributed by Jim Henrich, Horticulture Director.

name boucaniers became buccaneers. meat on a wooden grid, or "boucan." Over time, the supply of Jamaican allspice on their ships to cure A: Seventeenth century swashbucklers kept a large



The Wild Side

News from Chatfield

Each spring Chatfield Arboretum turns into a nursery of sorts. Animal parents return every year because the Arboretum provides safety, shelter and food sources for their young. The Great Horned Owls are resident parents that consistently find nesting space amongst the dense stands of large cottonwoods throughout the Arboretum. Owls, who typically mate for life, return to the same nesting site year after year. Volunteers and visitors anxiously await the hatching of the young owls in the spring and enjoy watching as the young birds learn to fly and hunt.

These brave birds are distinguished from their parents by the fuzzy, white down that surrounds their chest and neck, as well as their unmistakable high-pitched screech. For the past several years, Great Horned Owls have successfully raised at least two young. No matter what season you visit, you have a good chance of catching a glimpse of these mighty hunters. But, if you come in the spring, you may see them in a different, more nurturing light.

Winter hours at Chatfield Arboretum are 9 a.m. to 5 p.m. daily and, as always, admission is free to members.



Great Horned Owls have successfully nested at Chatfield Arboretum for the past several years.

Sayonara to a beloved friend

Many members of Denver Botanic Gardens will remember Kai Kawahara, the curator for the Japanese Garden from its inception until 1993. Kai, born on January 5, 1920, epitomized the qualities that are so commonly admired in Japanese art and literature: harmony with nature, a seemingly effortless simplicity of style and diligence that leads to greatness. Kai passed away at the age of 78 in December of 1998 after a long illness. The Board, staff and many members express deep condolences to Kai's family. He will be dearly missed.

The Japanese Gardening Society recognized Kai as a "Master of Bonsai" in 1983. One of his twin trunk maple bonsai is in the Pacific Rim Bonsai Collection, managed by Weyerhauser Corporation, in Seattle, Washington.

DBG owes a great debt of gratitude to Kai not only for being the force most responsible for bringing Koichi Kawana's (the garden's designer) vision into being, but for the many personal touches that he added to the garden. Chief among these are the extraordinary character pines.

Bonfils-Stanton presents...



A good marriage enhances both partners, and the same can be said for good plant combinations. "Plant Marriages, Excep-

tional Combinations of Flower, Foliage and Structure" is a beautifully illustrated lecture, on Wednesday, March 24.

During this second in the series of Bonfils-Stanton lectures, noted plantsman, Dan Hinkley, will discuss how a strong, successful relationship between plants is based on more than simple complement or contrast of color.



A "Master of Bonsai" and the longtime curator of the Japanese Gardens, Kai Kawahara and his wife, Grace.

The more than 128 ponderosa pines in the Japanese Garden were all personally collected by Kai and his associates in the Denver Bonsai Society. This was no small task as much paperwork was necessary to obtain collection permits and many of the trees found on granite outcrops, were quite large and difficult to transport. The survival rate of these trees is miraculous and they constitute one of DBG's greatest treasures, a veritable forest of ancient, windswept living sculptures.

Dan will show how to combine perennials, annuals, trees, shrubs and vines to create a composition that provides a full season of interest or a progression of dramatic display. Hinkley, a popular garden speaker, is the owner of Heronswood, a mail-order nursery near Seattle. The nursery's extensive catalog lists over 2,800 plants including many raised from the seed that Dan collected on forays into Japan, Korea, Nepal, China, Chile and Mexico. Also a garden design consultant and writer, Dan frequently writes for Horticulture, Fine Gardening, Martha Stewart Living and American Horticulture. Hinkley has

In our Garden of Pine Wind, or "Shofu-en," the wind never blows so sweetly as it does among Kai's trees; they are a living monument to an exceptional gardener named Kai Kawahara.

A memorial account has been established to fulfill Kai's dream of making the Japanese Garden totally handicapped accessible. To contribute, please send mail to the Kai Kawahara Memorial Fund, 909 York Street, Denver, CO 80206

authored Winter Ornamentals, and is currently working on The Plant Hunter: Unusual Perennials for American Gardens.

Join us at 10 a.m. or 7 p.m. in Mitchell Hall to learn how to create your own plant marriages for year-round appeal. Generous support by the Bonfils-Stanton Foundation since 1987 enables the Gardens to attract speakers from around the country. To register, please call 303-370-8020. Tickets are \$8 for members and \$12 for nonmembers. Dan will be available following his program to autograph copies of his book which is sold in the Gardens' Gift Shop.

THE WONDERFUL WORLD OF AROIDS

Aroid is an inclusive name for all the plants in the family Araceae. The group comprises more than 100 genera, and approximately 2,000 species. More than 90% of the species are tropical, though a few are indigenous to the United States, such as jack-in-the-pulpit and skunk cabbage. Most aroids are grown as ornamentals, but a few are used as a food source. The tubers of taro (Colocasia) are a staple food throughout tropical Asia, Malaysia, and the islands of the Pacific. The Hawaiians prepare poi from taro. Ceriman or Mexican breadfruit (Monstera) is esteemed for eating and, when ripe, tastes like pineapple.

Within this family are some of our most familiar house plants. Chinese evergreen (Aglaonema), dumb cane (Dieffenbachia), Philodendron and Spathiphyllum are the most common. There are many cultivated varieties of each of these as well. Tall or short, variegated or plain green, climbing or nonclimbing, this group features a broad diversity of form and color.



The huge heart-shaped leaves of Anthurium splendidum add to the lush understory of Tropical Botanica.

In their natural habitat, aroids usually grow in shady damp conditions. Because of this, these plants have been collected, grown and introduced as possible candidates for the darker areas in homes. As it has turned out, these plants have proven to be quite tolerant of not only low light conditions, but also of the dryness in the home environment. Because of the low

humidity within most homes, dry tips often occur on plants. Increasing the humidity by grouping plants together, placing moist pebble trays beneath plants or using an air humidifier will often solve the problem. The Tropical Botanica exhibit includes many beautiful aroids, including some that may already be a part of your houseplant collection.

Gary Davis, Horticulturist



Calathea warscewiczii drawn by Jayme Irvin.

Plant Portrait

Calathea warscewiczii

The genus *Calathea* contains about 300 species and is part of the Marantaceae family. Many calatheas are of significant economic importance. *Calathea allouia* is second only to maize as a field crop in parts of Central America. Their tubers are eaten much like potatoes. Baskets are woven from the stems of *Calathea lutea* and a wax is extracted from its leaves. Many are grown for their beautiful foliage and can be used in tropical landscapes or as houseplants.

This is the case with *Calathea warscewiczii*, a beautiful native of Costa Rica that grows two and a half feet tall. Its richly colored green leaves feature irregular, yellowish-green markings along the midrib. The undersides of the leaves are just as beautiful and are a velvety-textured wine-red color. White flowers in cone-like heads appear periodically. *Calathea warscewiczii* foliage emerges from rhizomes (horizontal, underground stems) and forms clumps or colonies in damp, swampy forest floors and in areas subject to periodic flooding. This beautiful calathea can be found in several locations throughout the Tropical Botanica exhibit.

Nick Snakenberg, Horticulturist

The winner's circle

Spring's arrival is full of promise and hope: the promise of harvest and hope that the harvest will be worth the work and wait. Each year the All-America Selections (AAS) presents an array of garden worthy plants that have undergone field trials across North America. Only those exhibiting superior garden performance earn the AAS Award.

1999's twelve winners include four vegetables and eight flowers. This month's article features the four vegetable varieties that made the final cut. 'Wee-B-Little' pumpkin will delight gardeners of all ages with its true Jack-o'-lantern shape and small decorative size. The deep orange skin is perfect for fall table decorations. The compact vine will spread six to eight feet and mature in about 120 days from sowing seed.

Watermelon F1 Hybrid 'New Queen' is a unique, gourmet variety with bright orange, sweet flesh. Easy to grow from seed or plants, 'New Queen' is early to mature in about 75 days from seed or about 63 days from transplanting. Vigorous vines can spread up to nine feet. The melons average about five to six pounds. Sweet and colorful, 'New Queen' is sure to please.

Squash F1 'Eight Ball' is the first round summer squash. Harvest these cute, round zucchinis five to six weeks after sowing seeds or transplanting. This plant grows quickly, and if left on the vine too long, the large seeds can be scooped out and the fruit can be used as a decorative bowl for dips, salads or other vegetables. Mature plants are compact, growing 30 inches high by 36 inches wide.

Tomatoes are prized by gardeners and the tomato F1 'Juliet' will undoubtedly be popular. A distinctive oblong shape, good flavor and superior holding qualities have landed 'Juliet' in the 1999 AAS winner's circle. This high-yield tomato will provide ample supply for salads or popping whole into your mouth. Ripe fruit may be harvested in 60 to 70 days from transplanting. Look for these varieties available as seed or as transplants when planning your garden this spring.



Top, Watermelon F1 Hybrid 'New Queen'; Left, Wee-B-Little' pumpkin; Right, Tomato F1 'Juliet'



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. How soon may I sow vegetable seeds in the garden and what types should I try?

A. Depending on the weather, cool season vegetable seed may be sown as early as late March and the first weeks of April. Kale, cauliflower, carrot, cabbage, broccoli, beet, parsnip, leek and rutabaga are among those to try. If you have a cold frame, chilly weather should be no problem; otherwise, try lightly mulching or covering the seedlings if the weather turns very cold. It is certainly not too early to start those same varieties indoors for transplanting into the garden in mid to late April.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.

March

MONDAY

TUESDAY

Orchid show and sale, March 13 & 14

The Denver Orchid Society will bring thousands of blooming orchids to DBG at its spring show and sale on Saturday and Sunday in Mitchell Hall. Novices and collectors can enjoy a variety of orchids on display and for sale. The "Orchid Doctor" will also answer orchid growing questions. The event is from 10 a.m. to 5 p.m. each day and is free to members. For more information, contact Shawn Quealy at 303-443-8022.

African violet show & sale, March 20 & 21

The Rocky Mountain African Violet Council hosts the 36th annual African Violet Show and Sale from 1 p.m. to 4:30 p.m. on Saturday and 10 a.m. to 4 p.m. on Sunday in Mitchell Hall. Themed, "Saintpaulia Serenade," the show will feature hundreds of African violets and gesneriads for sale, educational displays and floral designs. For information, call Nelly Levine at 303-423-6072 or Nelshel@MSN.com. Free to members.

Community Gardens, March 25 or 27

The Community Gardens open for the season on March 27. If you are a registered community gardener please plan to attend one of two orientation sessions on Thursday, March 25, from 6:30 to 8 p.m. or Saturday, March 27, from 10 to 11:30 a.m. Please contact Selina Rossiter at 303-370-8042 for more information or to sign up for a session.

Succulent show and sale, March 27 & 28

A crop of cacti and succulents will be on display and for sale at the Colorado Cactus and Succulent Society's show and sale. This year's sale will feature many winter-hardy varieties. Experts will answer questions and talk about cactus care and visitors can attend free mini workshops. Books, mugs, T-shirts, potting soil and containers will also be for sale. The event is in Mitchell Hall from 9 a.m. to 5 p.m. and is free to members. Call Mary Anne at 303-238-9975 for information.

Water garden speaker, April 11

Charles Thomas, Chairman of Lilypons Water Gardens and founder of the International Water Lily Society, will present "Trends in Water Gardening" at the Colorado Water Garden Society meeting on Sunday at 2:30 p.m. The meeting will be held at the Inn at Hudson Gardens at 6115 South Santa Fe Drive. Call Carla at 303-399-7946 for information.

KEY FOR CALENDAR

Bold gold type = Gardens events (V) = Volunteers are needed. Call 303.370.8049

Bold black type = Plant Society events Regular black type = Classes (CH) = Classes at Chatfield Arboretum

****** = Free to members

6

FOR MORE INFORMATION:

events 303.370.8187 Plant Society events 303.370.8097

1

8

Bonsai Society meeting

Beginning Botanical Colored Pencil* Designing Your Garden II: Texture and Color*

2

Watercolor Dry Brush Techi Naturalist Guide Training (C Natural Moisturizer and Lip Waves of Flowers, Foliage and Fragrance*

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Incredible Edibles: A Taste of the Wild, Tropical Harvest of Africa



Mycological Society meeting

Colorado Cactus & Succi Society meeting

Never-Fail Perennials*

14

Denver Orchid Society Spring Show and Sale Botanic Internet*

15

Bonsai Society meeting Conifers for Colorado Gardens* 16

Container Herb Gardening* Hot Frames*

21

Rocky Mountain African Violet Council Spring Show and Sale Mile High Daylily Society meeting

22

29

Ultra Violet African Violet Club meeting

23

Colorado Native Plant Sc

Montane Ecology*

28

Colorado Cactus & Succulent Society Show and Sale



The Waterwise Flower Garden* Making and Using Flower Essences* 30

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THURSDAY

FRIDAY

SATURDAY

3

Watercolor Dry Brush Technique* Diapers to Daisies, Soccer to Sunflowers, Designing a Family-Friendly Landscape* Perennial Advantage: Intermediate Level*

4

Planting Hope for Endangered Medicinal Plants

5

Free Day & 11 a.m. Tour

Aromatherapy: Part V* (CH) Rocky Mountain Horticulture I: Gardening Principles*

6

Incredible Eables: A Taste of the Wild,



Gloxinia Gesneriad Growers mtg. Understanding Front Range Soils* Water Gardening for Beginners* Stalking the Wild Herb* Uses of Common Herbs* The Practical Landscape: Boost Your Landscaping IQ

10

Eastman Kodak 💥 Photography Class Starting a Horticulture Therapy Program*

11

Denver Rose Society meeting The Perennial Border: Design and Planting*

12

Denver Orchid Society meeting Aromatherapy: Part V* (CH)

13

Denver Orchid Society Soring Show and Sali **High Country Judges Workshop Rocky Mountain African Violet**

Council meeting Papermaking with Herbs*

17

North American Rock Garden Society meeting Herb Society of America meeting Miniature Roses*

18

Soapmaking* (CH) Garlic Queen* Intermediate Bonsai: Boxwood* 19

Candlemaking* (CH) Early Bird Hike* (CH) 20

Rocky Mountain African Violet Council Spring Show and Sale

24

ntg.

Bonfils-Stanton Lecture

Transparent Acrylics for **Botanical Illustration***



25

African Violet Society meeting Gardeners of America meeting

26

27

Colorado Cactus & Succulent Society Show and Sale

Bonsai Society meeting

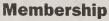
Behind-the-Scenes Greenhouse Tours* How To Train Your Grapevine*

31



CALL FOR PLANT SALE VOLUNTEERS

We need you! We are beginning to recruit volunteers for the 1999 Plant and Book Sale. **Volunteers are needed on Thursday, May 6,** Friday, May 7 and Saturday, May 8. For more information or to volunteer, leave a message at 303-370-4011. Your call will be returned!





Arbor Circle-and-higher-level members are invited to join knowledgeable guides for a complimentary tour of DBG's many greenhouses on Wednesday, April 7. Tours are available at 5:30 p.m. and at 6:30 p.m. Light refreshments will be served. Please call 303-370-8018 for reservations.



DBG TRAVEL ADVENTURES



Portugal and the island of Madeira

are the spring destinations for Denver Botanic Gardens' trip this April 13 through 27. Visit the ancient palaces, monasteries, gardens and museums as well as white-washed fishing villages and flower festivals. For more information on this cultural, historic and garden tour, call Pam at 303-370-8051.

Members benefit from RAP program

The Reciprocal Admission Program administered by the American Horticultural Society has been set-up to allow DBG's members free (or significantly discounted) visits to more than 100 gardens and arboreta throughout the country. If you will be traveling and would like a copy of the 1999 brochure, call the membership office at 303-370-8029.

Accessibility Committee

Have you ever found it difficult to understand a speaker at the Gardens because of background noise? Or, wished for a place to rest where no seating was available? Are you able to do less in your own garden due to waning strength? Is the print in some of the Gardens' publications too difficult for you to read? Are there places you can't go in your wheelchair? If you would like to help solve these and other vexing situations for yourself and others, the Accessibility Committee (AAC) needs you!

The AAC offers a challenging volunteer opportunity to support DBG's commitment to making all gardens, programs, employment opportunities and facilities accessible to people with limited abilities. The first requirement for AAC membership is an interest in gardening and horticulture. Members are people with disabilities, seniors and those who work with seniors or the disabled.

If interested, contact DBG's Janet Laminack, 303-370-8098, TDD: 303-370-8032 or Susan Turetzky, 303-333-2892.

Moving?

Please cut out your current address label and send it to "Membership" with your new address and phone and the effective date. We will input your change as quickly as possible so that you won't miss any of the action at the Gardens!



Circa Botanica members on the rise

Denver Botanic Gardens wishes to thank these generous individuals who stepped forward and became charter members of Circa Botanica in its inaugural year. Each donor made a membership gift of \$2,500 or more in support of DBG.

Mr. Zach Brinkerhoff, Jr. Mr. and Mrs. Paul Burkett Mr. and Mrs. William Collister Mr. and Mrs. Joseph Davis Mr. and Mrs. Robert Davison Mr. and Mrs. Walter C. Emery Mr. and Mrs. John E. Freyer Mr. and Mrs. Charles C. Gates Mr. and Mrs. George C. Gibson Mr. and Mrs. William Griffith

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Mr. and Mrs. Thomas E. Taplin

Thank you for making DBG's outstanding programs and activities a success.

Do something unique this Mother's Day!

This Mother's Day, make a gift honoring your mother that will last forever. Denver Botanic Gardens is offering its members and friends a rare chance to purchase named bricks in the Romantic Gardens. Now is your chance to show her how much you appreciate all that she's done. Make this tax-deductible gift by April 20th and bring your Mother to see her brick on Mother's Day. For more information, please call Kristin Decker at 303-370-8030.

Can you help...with our 1999 "wish list"?

Your donation will help defray DBG expenses and possibly give you a charitable tax credit.

The Gardens needs:

Stereo system with continuous tape/CD playing ability for Mitchell Hall Strings of outdoor lights for Blossoms of Light

Heavy-duty electrical cords for Blossoms of Light

All-terrain vehicle with snow-plow

New Polaroid cameras

Polaroid 600 film

4x4 vehicle for Research Department

White or forest green tablecloths for 8' banquet tables

Halloween decorations

Face painting supplies

Five or ten-gallon Igloo coolers

Two grounds vehicles (Cushman carts or other brands)

Stanchions and ropes (portable)

Call Anita Livingston (303-370-8185) for further information.

Memorials and Tributes

In memory of Dulcy Lynn Klatt

Linda Sanderman Gary Buonomo

Jovce Sims

In memory of David Esbenshade

Sandra Hinson

Glenn and Melanie Bischof

In memory of Jolee Trevor Brinkman

Joy S. Johnson W. W. Fletcher

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In memory of Barbara Kennedy

Carol Page

Barbara Day

In memory of Harry O. Hickman

Mr. and Mrs. William B. Collister

In memory of Jill and Amy Glass

Morris and Samuel Kenar Holly and David Missner

Sue and Joel Kaufmann

Mr. and Mrs. Doug Clark

In memory of Margaret McAlpine Zueck

Mr. and Mrs. Rollin D. Barnard

In memory of Mary R. Niave

Morgan Vickers

In honor of Rollin and Patty Barnard

Paul and Becky Wulfestieg

In memory of Mary Lee Ross

Betty M. Ambler



Okra betrays its origin in its very name. The name we use comes from the Twi language that is spoken on the Gold Coast of Africa. The dish in which it is the prime ingredient is another name for the plant. Gumbo is its name in Umbundu, a language in Angola. Like many domesticated plants, its wild origins are unclear. There are still wild varieties of okra in Ethiopia, the Sudan and West Africa, but this is a plant that humans have been using for a long time.

When we eat okra, we eat the immature seed pods. When they are fully ripe they are much too tough to chew. Okra is now eaten throughout the tropics. In tropical Africa and Madagascar, the leaves, young shoots and even the calyxes provide food. The leaves actually have more protein in them than the fruit. Okra is also used medicinally for poultices, emollients and the alcoholic extract is antibacterial.

Learn more about okra and other economic plants of Africa at the March Incredible Edibles, "A Taste of the Wild."

Sources from the Helen Fowler Library used for this article include:

Ayensu, Edward S. *Medicinal Plants of the West Indies*. Algonac, Mich.: Reference Publications, 1981. QK 99 W4 A935

Morton, Julia F. Folk Remedies of the Low Country. Miami, Florida: E. A. Seeman Publishing, 1974. RS 164 M678

Root, Waverley. Food. New York: Simon and Schuster, 1980. TX 349 R5 1986

Yamaguchi, Mas. World Vegetables: Principles, Production and Nutritive Values. Westport, Conn.: AVI Publishing, 1983. SB 320.9 Y3 1983

Cover Story: Incredible Edibles serves up the tropics



Children color Aztec Sun God pictures during "A Taste of the Good Life."

Take another taste of the tropics as the Incredible Edibles series continues. Now in its third year, the series explores the plants we eat. Vendors, speakers, exhibits and children's activities will all focus on the fruit, nuts and spices of the tropics.

In January, the first course in this tropical feast was served. Focusing on the fruits of the tropical Americas, "A Taste of the Good Life" allowed visitors to sample everything from chocolate to chiles. Vendors included Just Java, Enstrom Candies, Mountain Man Nut & Fruit, Denver Salsa, the Women's Bean Project, Apple Vacations and Star Charters, Full Measures Bakery and the handcrafts of SERRV International. Additional sponsors included Natures High Unique Foods and Coosemans-Denver, Inc., a fruit wholesaler, who donated several cases of fruit for sampling.

Speakers included Jandee Camozzi of Coosemans and culinary herbalist Karin Winans on tropical fruit; Debbie Whittaker, the Herb Gourmet, on the health aspects of fruit salsas; aromatherapist Jo Haugland and herbalist Christina Endres on vanilla; Natures High Unique Foods owner Andrew Hoart on nuts; and children's specialist Rebecca Sparks with chocolate drinks. In addition, DBG horticulturist Julie McIntyre offered guided tours of Tropical Botanica.

On March 6 and 7 the second course in this tropical feast will be offered. "A Taste of the Wild: Tropical Africa," will feature coffee, carob and coconut. The event will be similar in style to the first one. Visitors can look forward to a special coffee seminar and samples from Starbucks and a reappearance by Coosemans.

The final course will be served on April 10 and 11 with "The Spice of Life: Tropical Asia." Mangos, macadamias and a multitude of spices will season the weekend's festivities. As before, visitors can expect a variety of activities for all ages.

The Incredible Edibles series is free to members or with paid gate admission to the Gardens by nonmembers. The events run from 9 a.m. to 5 p.m. and are held in Mitchell Hall. For further information, please call 303-370-8041.

Out of Africa

South Africa, veiled in beauty and mystery, is home to one of the most significant plant concentrations in the world. On Thursday, April 8 at 7 p.m., South African botanist and ecologist Anne Bean and DBG Rock Alpine Garden curator Panayoti Kelaidis will introduce Denver to the exquisite and unusual plants of South Africa.

Chairperson of the Cape Horticultural Society, Anne Bean will concentrate on the Cape Floral Plant Kingdom and the fynbos. The Cape region has three times the concentration of plants and a far greater diversity than its nearest rival, the South American rain forest. The fynbos, a major biome of the country, is characterized by a Mediterranean climate and poor soils and has conditions similar to Colorado's Front Range. Yet, it is home to a surprising variety of plants.

Panayoti Kelaidis, an avid plantsman, has spent the last five years searching South Africa for plants that will grow in Colorado. After driving and hiking 10,000 miles, he has returned with over 500 varieties of seed. Following Anne Bean's presentation, Panayoti will summarize his exploration and report on the success of the most ambitious testing of hardy South Africans plant ever undertaken in America.

Out of Africa will be held in Mitchell Hall. The charge is \$12 for members and \$16 for nonmembers. For more information or to register, call 303-370-8020.



DBG Trustee Dr. Bill Campbell tours a private garden in South Africa during a trip led by Panayoti Kelaidis.

Grant helps to expand backpack program

Aided by a generous \$5,000 grant from the J. K. Mullen Foundation, the Discovery Backpack program is adding new packs to the fleet. Now, early elementary students can explore Tropical Botanica as if they're marooned on a tropical island and need plants to survive. They find food, shelter and fiber plants while investigating leaf shape, size and color. Like all of DBG's Discovery Backpacks, the Tropical Island packs are full of hands-on activities, making it easy for teachers to help students learn.

After a successful start in 1998, the other Discovery Backpacks have undergone a face-lift as well. Full color maps make way-finding easier. "Seed Sock Hop" and "Use Your Clues" activities liven up Plant Detective packs. "Choose-Your-Own Haiku" supplements the tour and stories in the Japanese Garden pack.

Popular Discovery Backpacks are available to school and youth groups by reservation only. Call 303-331-5777 to reserve the packs and learn more. Previewing is highly recommended.



Students escape to the tropics but keep learning

The mist hangs low. A caiman enters the water. Palms, ferns and orchids surround a group of entranced children. These lucky third to seventh-grade students are on a Tropical Forest Theme Tour. They've escaped from late winter weather and their classrooms, but they haven't escaped learning.

Students in 20 Denver-area schools are participating in the Tropical Forest Theme Tour. Besides following a guided tour of Tropical Botanica designed just for them, these students spend an hour in the Discovery Room. Here they investigate under microscopes what they could only eye from afar in the Conservatory. They touch, smell, compare, observe and hypothesize: they learn. While learning they have a great time which is the best kind of escape!

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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DON'T MISS...



The Gift Shop has a wide selection of gardening-related books and the inventory of titles has been increased by 40 percent. Popular topics include wildflowers, landscaping, individual flowers, herbs, crafts, cookbooks, outdoor activities and children's books. There are a variety of volunteer positions available in the Gift Shop including several newly created positions; please call 303-370-8079 for more information.

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky

Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

 Tues. and Thurs., 1 to 3 p.m.

Plant*talk* (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

Offices

Mon. through Fri., 8 a.m. to 5 p.m. 303-370-8060 Address changes Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049

Chatfield Arboretum 303-973-3705

Open every day, 9 a.m. to 5 p.m.

Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Tropical harvest by Kim Cook.

Green Inumb News



Colew Season
Spring begins in the Rock Alpine Garden
story on page 4



From the Top

News from the Executive Director

One week on the staff of Denver Botanic Gardens and my first of what will, I hope, be many contributions to the *Green Thumb News*. Before I get too far, I'd like to say that I am immensely grateful to Rick Daley and John Proffitt for leaving the Gardens in such good condition. This organization is truly in great shape and I'm looking forward to continuing to build on the traditions which have been set by my predecessors.

I've already met with many of the staff and they are a great team of professionals with the capacity to run a world-class operation. I was delighted to find that there is a wonderful spirit of collaboration between departments and individuals and that a robust sense of humor pervades every meeting I've attended. They are a powerful team.

During my long recruitment process, I've also met most members of the board and found a similar dedication to excellence and growth under the committed and passionate leadership of President Cal Cleworth. I especially want to thank him for making my transition from the very different world of South Florida such an easy one.

I've also begun to meet some of the Gardens' impressive team of volunteers. To me, the volunteer force is critical to keeping the Gardens on course. Volunteers are our eyes and ears in the community. They are also a powerful force in promoting the Gardens. I look forward to meeting more volunteers as the weeks progress: we can't succeed without you.

You'll hear a lot more from me in the coming months about the direction your great garden is taking but to end this short piece I'd like to tell you about a meeting I attended in Phoenix during the first week in February. This was a meeting of the directors of the major botanic gardens hosted by Desert Botanical Garden. I was proud to represent Denver Botanic Gardens and to hear from my peers, the most critical of audiences, just how strong is the affection and respect for your garden - we are seen as a very successful institution.

I am delighted to be here and look forward to contributing to even more success.

Brinsley Burbidge, Executive Director



Dawn chorus celebration

On Sunday, May 2, bird watchers the world over will gather at 6 a.m. to experience the dawn concert of nature's songbird choir. Started 14 years ago in England, the Colorado Urban Wildlife Partnership sponsors this spring festival at 17 sites throughout Colorado including Chatfield Arboretum. The program is not limited to serious "birders" as a professional naturalist will be on hand to help participants enjoy the sights and sounds of nature. The walk begins at 6 a.m. and will last about two hours. There is no cost to participate, but please call the Arboretum office at 303-973-3705 to register. Don't forget your binoculars!





Congratulations to Gary Davis, the March Employee of the Month. As Greenhouse Supervisor, Gary demonstrated professionalism, fortitude and creativity in the creation of Tropical Botanica. Juggling the demands of designers, contractors and staff, Gary created an educational place of wonder that will be appreciated for many years to come.



Question: Which of the following plants have poisonous parts: daffodil, potato, apricot, morning glory, rhubarb?

Answer: All of the above. This month's plant puzzler was contributed by Lisa Castle in the Education department.



An avid hunter, the Northern Shrike can be seen on occasion at Chatfield Arboretum.

Sculptural Plantings

Joel Sacket.



Architectural plants are the skeleton and framework of the garden and are key to creating a garden that is striking year-round. At the Wednesday, April 28 Bonfils-Stanton lecture, noted garden writer Ann Lovejoy will illustrate how "Architectural Plants: Sculptural Plantings" offer shape and form to truly add distinction to a garden. Bold, spiky, long-leafed or eccentric looking, architectural plants create drama in any garden, proving an effective counterpoint to flower color. Whether traditional or exotic, delicate or unusual, they are plants with a distinct and strong form.

Ann is one of the country's leading garden experts, and has written 13 books including Naturalistic Gardening, Garden in Bloom, American Mixed Border and Perennials: Toward Continuous Bloom.

She is the recipient of the prestigious American Horticultural Society Award, and her articles appear in Fine Gardening, Horticulture, Western Living, Better Homes and Gardens and The New York Times.

Support of the lecture series by the Bonfils-Stanton Foundation since 1987 allows the Gardens to bring in speakers from outside the region. Lectures are at 10 a.m. and 7 p.m. in Mitchell Hall, 1005 York Street. Please call the registration office, 303-370-8020, to register. Tickets are \$8 for members and \$12 for nonmembers. Ann will be available after her lecture to autograph copies of her books which are sold in the Gift Shop.

Botanical Illustration Show winners



Beverly Duncan's sugar maple leaf won first for color.

Denver Botanic Gardens' third annual botanical illustration show featured 103 impressive pieces of art. The first place ribbon for a color entry went to Beverly Duncan of Ashfield, Maine for her watercolor rendering of a sugar maple leaf. The judges praised it for its passionate attention to detail, exemplary threedimensionality and color saturation. Sharron O'Neil took second place for her toyon Heteromeles arbutifolia done in watercolor; third place went to Marilyn Morrill Droege for her watercolor of fly agaric Amanita muscaria. Honorable mention ribbons in the color category went to Olga Eysymontt and Carol E. Hamilton.

Cindy Nelson-Nold of Lakewood, Colorado was honored as the Best Rocky Mountain Artist for her mixed water media illustration of *Penstemon petiolatus*. The best-of-show award went to Rhonda Nass for her *Lonicera* sp. done in acrylic on canvas which was cited for its luminosity.

In the black and white category, the first place award went to Suzanne Olive of Nevada City, California for her pencil rendering of a digger pine cone, *Pinus sabiniana*. Her work was honored for its superb technique and perfection of detail. Second place went to Elisabeth de Boor for her pencil rendering of burdock, *Arctium* sp. and June Kluglein received third place for her lithograph of wrinkled rose, *Rosa rugosa*. Honorable mentions were given to F. Michael Kinsey and Ruth Snell MacDonald.

The Gardens' would like to thank the Rocky Mountain Society of Botanical Artists for their help in chairing this successful event.

It's all in the name

Imagine the thrill of discovering a plant that has been named in your honor. DBG's recent Acting Director, John Proffitt was delighted when presented with several sturdy specimens of *Delosperma* 'John Proffitt' at the January 26 Board of Trustees meeting. Dr. Moras L. Shubert, Life Trustee, ceremoniously awarded these outstanding delospermas to

Delosperma 'John Proffitt' sets a colorful scene.

Mr. Proffitt. Panayoti Kelaidis, personally selected this plant for this auspicious occasion. *Delosperma* 'John Proffitt' is a hardy ice plant with outstanding ornamental features. Chief among these are the rich pink flowers with a distinctive white center that smother the prostrate mat of foliage from late March through July. The foliage is attractive throughout the year. 'John Proffitt' ice plant is perfect for dry, sunny areas and is hardy to USDA zone 4. Denver Botanic Gardens will be offering *Delosperma* 'John Proffitt' at the annual Plant and Book Sale, May 7 and 8, 1999.



Plant hunter, Kelaidis panayotii var. procumbens celebrates spring in South Africa amid the splendor of Gazania krebsiana.

The holiest mystery in Ancient Greece was celebrated in spring. Antheridion, the festival of flowers, took place in Eleusis, not far from Athens. This weeklong, religious rite was so secretive that sacred scholars still speculate on just what went on there. Flowers of all sorts, not just lilies, are associated with Easter, the holiest season of Christianity. Gardeners, more than anyone, appreciate why religions celebrate rebirth and renewal in the spring. Every day represents a magical transformation for plants. As crocus and primulas offer their bouquets of celebration, pilgrimages of the faithful and devoted should check out the Rock Alpine Garden!

By April Fool's Day, most of the crocus, reticulate irises and other so-called "minor" bulbs have long since bloomed, indeed they are well along in preparing themselves for next year's show. The shocking Pheasant's eye (Adonis amurensis) from east Asia has finished displaying its golden-yellow satin buttercups, leaving behind a ferny tuft of foliage as a wistful remonstrance for visitors who tarry. Bulbs, however, are only the overture, the symphony really starts in April.

The Pasque flower can now be seen throughout the garden: huge furry goblets of royal purple. These have volunteered throughout the Rock Alpine Garden — loving to plant themselves in tiny crevices between boulders or along the fringes of pathways. Each clump seems utterly distinctive — as individual and charming as the members of a chummy garden club.

Towards the middle of the month, acid yellow drabas, a host of saxifrages and mats of creeping phloxes produce the first large drifts of bright color among compact herbaceous plants. You can practically hear the birds chirping and plants crackling with sap and joy in the bright spring sun. For heaven's sake, turn off the computer, put on some modern version of a toga and come join the rites of spring! The mystery of Eleusis may not be revealed, but many sensory delights await the lucky travelers to the Rock Alpine Garden this month.

Rich Bishop, Horticulturist and Panayoti Kelaidis, Curator, Rock Alpine Garden



Symbolic of spring's renewal, Pulsatilla vulgaris have naturalized throughout the Rock Alpine Garden.

Plant Portrait

Sanguinaria canadensis

The eastern woodlands are renowned for early spring ephemerals, wildflowers that are quick to bloom and die down. None are quicker than bloodroot (*Sanguinaria canadensis*), a distinctive member of the poppy family that derives its name from the red sap that bleeds when leaves and rhizomes are divided.

The flowers on a typical form of this plant rarely last more than a week, even in perfect spring weather. Fifty years ago a variety that has been named 'Multiplex' was discovered with perfect double blossoms that persist over a period of several weeks. The luminous flowers uncannily resemble a fluorescent white waterlily. This stunning native wildflower is a feature every April in the Rock Alpine Garden — just walk along the gravel path behind the Alpine House and one or another of several patches of this miraculous native plant are likely to be in bloom. You will not miss them.

Panayoti Kelaidis, Curator, Rock Alpine Garden



The beautiful flowers of Sanguinaria canadensis 'Multiplex' appear to float on its dramatic leaves.

FLOWER ROWER



Portulaca 'Sundial Peach'

Tastebuds were tempted last month with the introduction of the 1999 All-America Selections® vegetables. Based on the results of superior performance in field trials across North America, seven annual flowers and one perennial received the coveted AAS Award. The following is a summary of the winners and their stellar attributes.



Gardeners on the lookout for new plants relish the promise of nonstop color. The following varieties guarantee color plus ease of growth, pest resistance and usefulness as cut flowers. Marigold 'Bonanza Bolero' has a distinctive variable pattern in large, double blooms of golden yellow and mahogany red. This drought-tolerant, aromatic winner asks little of the gardener other than to be planted and enjoyed.

Everybody loves a daisy and Osteospermum 'Passion Mix' with its azureblue eye promises to be a crowd pleaser. Available in shades of rose, purple or white, these African daisies will be equally at home in borders, planters or window boxes. 'Passion Mix' will flower all season, but superior flower show occurs in spring and fall.

Portulaca F₁'Sundial Peach' is the first moss rose to earn the AAS Award. Its unique pastel coral color provides a vibrant display of large semi-double flowers, luminous and noticeable even from a distance. Continuous flower color and heat tolerance make 'Sundial Peach' a perfect choice for "hot spots" or sunny patios.

AAS recognizes Zinnias 'Profusion Cherry' and 'Profusion Orange' with the

> additional honor of the Gold Medal Award. All around superior performance is demanded to achieve this designation. 'Profusion Cherry' and 'Profusion Orange' exceeded all expectations in field trials and promise to perform tirelessly in your garden this summer.



A spectacular choice for containers or hanging baskets is Verbena 'Quartz Burgundy'. Large, velvety umbels of deep, burgundy-red appear for months and are resistant to powdery mildew. Begonia F₁ 'Pin-Up® Flame' is the last of the AAS Award-winning annuals. 'Pin-Up Flame' features an unusual bicolor combination of yellow with orange-red petal edge. Shaded garden areas and containers will glow with the color of this tuberous rooted begonia.

It is a rare occurrence when a perennial wins the AAS Award. Kniphofia 'Flamenco' won honors because the plants flowered the first year grown from seed. The flowers may vary in color in shades of yellow, orange and red, and are desirable as a long-lasting cut flower. 'Flamenco' (zones 5-9) will perform best if grown in full sun and peak flowering performance will begin in July of the second year.

Look for these new varieties in current seed catalogs, or as started plants in garden centers this spring. Note: F₁, F₂, etc. are symbols used to designate the first generation, the second generation, etc. after a cross-pollination.



Zinnia 'Profusion Orange'



April 8, Out of Africa: presented by Panayoti Kelaidis and Anne Bean

Meet South African botanist and author Anne Bean who will introduce you to the wonders of Cape Floral Kingdom, the smallest and richest floral kingdom in the world. You'll also hear from Panayoti Kelaidis, DBG's award-winning Rock Alpine Garden curator. Kelaidis has made four trips to South Africa to collect the seed of many plant varieties for introduction to the Front Range. The lecture will be held at 7 p.m. in Mitchell Hall. Entrance is \$12 for members and \$16 for nonmembers. Call 303-370-8020 to register.

April 17, Alpine Plant Sale

The North American Rock Garden Society's (Rocky Mountain Chapter) annual sale at DBG will take place on Saturday, April 17 from 9 a.m. to 4 p.m. in Mitchell Hall. The sale will feature more than a dozen of the best Colorado growers who will display thousands of choice alpines, perennials, dwarf conifers, seed-grown hardy cacti and ground-covers. Many new plant introductions and a large selection of trough containers will be available. Growers and experts will also be on hand to answer questions and assist in selecting plants. Entrance is included with general gate admission. Contact Rod Haeni, at 303-795-7597, for more information.

April 27, Volunteer Appreciation Day

April is national volunteer recognition month and to show our appreciation, DBG will host an ice cream social on April 27, from 1-3 p.m. in Mitchell Hall. The program will include a slide show and update regarding changes at DBG and new volunteer opportunities. Call 303-370-8049 with questions.

May 1 & 2, Ikebana Show

The Denver Chapter of Ikebana International will host their biannual Ikebana Show which highlights the art of Japanese flower design using all fresh materials. The show will feature the display of approximately 40 Japanese floral arrangements and daily floral design demonstrations. The show will be open 9 a.m. to 4:30 p.m. on Saturday and 9 a.m. to 4 p.m. on Sunday. Floral demonstrations will be held at 11 a.m. and 2 p.m. daily. Entrance is included with general gate admission. For more information, contact Lois Krause at 303-467-9859.

KEY FOR CALENDAR

Bold pink type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society eventsRegular black type = Classes
(CH) = Classes at Chatfield Arboretum

★ = Free to members

FOR MORE INFORMATION: Gardens events 303.370.8187 Plant Society events 303.370.8097

CALL FOR PLANT SALE VOLUNTEERS

We need you! We are beginning to recruit volunteers for the 1999 Plant and Book Sale. Volunteers are needed on Thursday, May 6, Friday, May 7 and Saturday, May 8. For more information or to volunteer, leave a message at 303-331-4011. Your call will be returned!



Free day at York Street
Theory of Mixing Colors*
The Impatient Gardener*



6

A Garden of Your Own: Col A Women's Garden*

11

Incredible Edibles: **

"The Spice of Life: Tropical Asia and the Pacific Islands"



12

Mycological Society meeting

13

to Madeira and Portugal Colorado Cactus & Succ Society meeting Herbal Gifts for Mother's [



18

American Begonia Society meeting Mile High Daylily Society meeting 19

Cacti and Other Succulents for Beginners*

20

Bonsai Society meetingOrganic Rose Growing*

25

26

Ultra Violet African Violet Club meeting

27

Colorado Native Plant Society meeting

Books

Thousands of donated books, magazines, compact discs, records and videocassettes will be for sale in Mitchell Hall. Cookbooks, gardening books, children's subjects, suspense, romance, classics and mysteries will all be available for a fraction of their original cost. Book sale proceeds are used to purchase new books for DBG's Helen Fowler Library.

Mother's Day Gifts

Don't forget that Mother's Day is the day after the Plant Sale. You're sure to find the perfect gift from the selection of hanging baskets, orchids, lilies, terrariums and bonsai.

Volunteer opportunities

The Plant & Book Sale is one of the most enjoyable ways to volunteer your time to the Gardens. Help is needed and greatly appreciated before and during the sale. To get involved, call 303-331-4011. Please leave a message and your call will be returned as quickly as possible.

T-shirts and posters

Official T-shirts and posters to commemorate DBG's 50th Annual Plant & Book Sale will be available for purchase.

Vegetables

Sale organizers promise they won't run out of vegetables and the division has been expanded to include many new selections and more of your old favorites. More than 60 varieties of Shepherd's vegetable seeds, which are highly recommended by DBG staff for the Denver area, will be available at the sale. A sup-

Plant Select®

The popular Plant Select® program will debut the 1999 plant selections chosen by DBG, Colorado State University and Green Industries of Colorado for their suitability to the special growing conditions of the Rocky Mountain region. Previous selections from 1997 and 1998, as well as preview selections for the year 2000, will also be available.

By purchasing these unique Plant Select candidates you will have the opportunity to evaluate their performance in your garden and provide valuable information to the Plant Select Propagation Committee. Come join us, purchase some of these unusual plants and become an evaluator.

Perennials

Increase your plant collection by adding from the large variety of flowering vines, ornamental grasses and perennials that thrive in shade, part shade and the full force of mile-high sunshine. All plants will be sold in four-inch containers.

Fall Plant Sale

Exciting news! This year, for the first time, there will be not one but two plant sales. The Fall Plant Sale, September 17 and 18, will feature items that are best planted during the autumn months, including peonies, daylilies, iris, chrysanthemums, perennials, orchids, bromeliads, gesneriads, cacti and succulents, spring bulbs, own-root roses, ornamental and native grasses, trees, shrubs and garden-grown stock. Please note that home-grown donations will be accepted only for recognized name varieties.

Plant division changes

Denuer Botanic Gardens 50th annual Plant & Book S



DBG closed

Thursday, May 6 from 9 a.m. to 4 p.m. for sale preparation

Come celebrate the 50th Annual Plant & Book Sale on Friday and Saturday, May 7 and 8. Thousands of new and unusual plants, as well as old favorites, will be for sale. The gates open to the public from 10 a.m. to 5 p.m. but members, seniors and the physically challenged are welcome to shop early from 8:30 to 10 a.m. on both days. Seniors and the physically challenged may

Members' Shopping Spree

Plant Sale hours
Friday and Saturday, May 7 and 8
Members/seniors/physically challenged shop early 8:30 to 10 a.m.
Open to general public

Free admission

Free off-site parking, free shuttle bus

More than 250,000 plants

Thousands of books

Mother's Day gifts

Concessions provided by Three Tomatoes Catering

A clearance sale will begin at 1 p.m. on Saturday when all remaining plants will be reduced by 50%. And yes, members receive an additional 10% off.

New this year is the Members' Shopping Spree on Thursday, May 6 (see invitation on the back of this page). Tickets must be purchased in advance.

Membership benefits

Members will receive a 10% discount on all purchases. Only one member per membership card will be admitted during the early shopping time from 8:30 to 10 a.m. on Friday and Saturday. New memberships and renewals will be sold at all entrance gates.

Parking

You can avoid the hassle of driving and parking by riding the shopper's shuttle bus. Simply park your car at the south end of the Target store parking lot in Glendale, 4301 East Virginia Avenue, and enjoy the short ride to the Gardens. It's free!

Check-outs and plant valets

Cashiers will be located at the main gate on York Street as well as the north entrance on Gaylord Street. For 10 items or less, use the express check-out at the south gate in the parking lot of the Waring House. Grocery carts are limited so you might want to bring your own wagon or luggage cart.

Simplify your life by taking advantage of the plant valets located at the corner of 11th Avenue and Gaylord or at the main entrance on York Street. Just leave your purchases with the valet, ride the free shuttle bus back to your car, then return to one of these valet stations where volunteers will load your beautiful new plants into your car.



Members Shopping Spree: Shop early for the best selection. Members receive a 10% discount

Thursday, May 6, 1999 4 to 8:30 p.m. 1005 York Street \$15 per person

Space is limited and payment must be received by April 30, 1999. No telephone reservations will be accepted. Send your check to: Denver Botanic Gardens Members' Shopping Spree, 909 York Street, Denver, CO 80206. A confirmation card will be mailed to be used as your ticket for entrance. Please call 303-370-8091 with questions.

Denver Botanic Gardens, 1005 York Street, Denver, CO 80206 For more information about the Plant & Book Sale, call 303-370-8091.

www.botanicgardens.org







1

Intermediate Bonsai: A Maple Grove*

2

Free Day & 11 a.m. Tour Chatfield Arboretum



3

Gloxinia Gesneriad Growers mtg.

Denver Rose Society Rose

Symposium

Raffia Hat* (CH)

Birds and Berries: Landscaping
for Wildlife* (CH)

7

Style*

Behind-the-Scenes Tour

Arbor Circle level members & above



8

Out of Africa Rose Society meeting

Horticultural Therapy Techniques*
Out of Africa*

9

10

Incredible Edibles: Tropical
Asia and the Pacific Islands

Rocky Mountain Orchid judging
Applied Plant Taxonomy*
The Rose Garden*
Pressed Flowers & Herbs*
The Water Garden:
Basic Pool Construction*



14

15

Families with Dirty Hands*

16

17

North American Rock Garden Society Alpine Plant Sale Flavor Infusion with Herbs* Oriental-Style Pruning*



21

Herb Society of America meetingSprouts Training*

22

African Violet Society meeting Gardeners of America meeting

23

24

Bonsai Society meeting

Basic Herb Gourmet Cookery*
Dandy-Lions*

28

Bonfils-Stanton lecture

Architectural Plants: Sculptural Plantings



29

30

Coming Soon...

The 50th annual Plant and Book Sale on May 7 and 8





Behind the scenes tour

Members at the Arbor Circle-or-higher levels of membership are welcome to come tour the greenhouses of Denver Botanic Gardens on April 7,5:30 or 6:30 p.m. Come explore this fascinating area of the Gardens which is seldom open to the public. Light refreshments will be served. Please make reservations by calling 303-370-8018. For more information, contact Benny Juarez at 303-370-8091.



Members' shopping spree

In an effort to better serve our members who are "serious" gardeners, Denver Botanic Gardens is giving members a first crack at many of the more unusual or rare plants and specialty items available at this year's Plant and Book Sale. A \$15 entrance fee will allow members to shop early on Thursday evening, May 6, from 4 to 8:30 p.m. The number of shoppers will be limited and payment must be received by April 30. Early entry for members will still be available both days of the Sale and, as usual, a 10% discount will be available for members. Invitations will be mailed to members so watch your mailbox.

Moving?

Please cut out your current address label and send it to "Membership" with your new address and phone and the effective date. We will input your change as quickly as possible so that you won't miss any of the action at the Gardens!





DBG TRAVEL ADVENTURES

New England fall foliage tour! Inn-to-Inn hiking in the White Mountains of New Hampshire September 24 through 29, 1999

Hues of red, orange, yellow, green and purple greet the adventurous hiker on this fabulous trip to New England. With sunny days and crisp nights, late September is the perfect time to explore the White Mountains of New Hampshire. Trails lead to scenic waterfalls, crystalline lakes, babbling brooks and spectacular mountain vistas in autumn color. At the end of the day, relax at elegant inns noted for their decor, dining and views.

The price of this 6-day trip is \$1295 per person and includes lodging, land transportation, all meals, entry fees, taxes and guiding services. A \$400 deposit is required. Call Pam Rathke at 303-370-8051 for more information and to register. This trip is rated "moderate." Participants must be able to hike a minimum of 5 to 6 miles per day over an elevation change of 700-800 feet.



Missing in action...

Sheila and Cal Cleworth's names were inadvertently left off of last month's list of Circa Botanica charter members. We sincerely apologize for this oversight. Not only did Cal and Sheila help conceive of Circa Botanica, they were among the first couples to join. The Cleworths made several generous contributions this past year including a named bench in the Romantic Gardens, several named bricks, in-kind gifts and the willingness to host several private gatherings at their home. Cal's outstanding leadership as President of the Board of Trustees helped ensure a smooth transition between Executive Directors. Thank you, Cal and Sheila, for all you've done!

Seven ways to remember the Gardens

There are many ways to remember Denver Botanic Gardens in your estate plans. You may wish to consider one of the following options:

- 1. Have your lawyer prepare a simple, inexpensive codicil for your existing will to create a bequest for Denver Botanic Gardens.
- 2. Visit your employer's Human Resources office and ask to add the Gardens as one of your beneficiaries to your group life insurance policy or retirement plan. Or, add the Gardens as a recipient if another predeceases you.
- 3. Amend an existing insurance policy to add Denver Botanic Gardens as an additional beneficiary or simply purchase a new one for our benefit.
- 4. If you are over 65 and disappointed with the income you are receiving from your long-term stocks, certificates of deposit or mutual fund shares, consider the benefits of placing some of your assets in one of our Life Income Programs' gift plans.
- 5. Donate your house to the Gardens and continue to live in it. Your income tax savings from the gift may cover any legal costs.
- 6. Leave written or verbal instructions for your surviving spouse to include Denver Botanic Gardens when redrawing their will (which will be necessary).
- 7. If you have a sizable estate, let us show you how to create a trust which will pay an annual income to the Gardens for a specific number of years and then distribute its principal to your children or grandchildren.

An array of charitable gift plans can allow you to honor your personal objectives and fulfill your philanthropic wishes for the Gardens. Although we do not practice estate planning, we would be pleased to sit down with you and help you get started.

Please send in the reply form below to let us know how we can serve you. And thank you for your long-standing support of the Gardens.

Dear Friends at the	Gardens:	
Please contact me reg	arding one of the giving options men	tioned above.
🖵 I have already remen	nbered Denver Botanic Gardens in m	y estate planning.
Please send me inform	nation about Perennial Friends.	
Name		
Address		
City	State	Zip
Phone	Birth date(s):	
(This information is needed for in	auiries regarding gifts that produce income.) Mail t	his form to: Denver Botanic

Gardens, Jennifer Darling, Director of Development, 909 York St., Denver, CO. 80206, or call 303-370-8027.

Memorials and Tributes

In memory of J. David Esbenshade

Mad Money Makers Investment Club Mr. and Mrs. George Shultz, Jr. Dr. and Mrs. Herbert K. Cooper, Jr. Mr. and Mrs. John H. Esbenshade, Jr. S. T. and Judy Pfeffer Mr. and Mrs. Stuart Raub, Jr. Mr. and Mrs. John H. Esbenshade, III

Miguel and Maggie Espinosa

Elizabeth Reeves

Dot and Richie Smith Mr. and Mrs. Christian McMurtrie

In memory of Alice H. McWhinney

Barbara Benedict Garden Club of Denver The Armstrong Family Prue Grant The Monday Club

In memory of Kai Kawahara

Fusako G. Kawahara Syd Glick

In memory of Jolee Trevor Brinkman

Celia C. Sheneman Margaret McCulloch Peck

In memory of Freda Oppe

Beverly Capron

In memory of Frances B. Neil

Lavinia L. Johnson Mr. and Mrs. Saul Seinberg Mrs. Patricia McFerran Dr. and Mrs. Donald E. Eakins Mr. and Mrs. Craig A. Cook

Mr. and Mrs. John Epke In memory of Donald E. Sparn

Bill Burger

In memory of Sherry Lynn Pollard

Bud and Sue McCarthy, Mike and Jon In honor of Ed Connors

The Garden Club of America
In honor of Panayoti Kelaidis

The Garden Club of America

In memory of Della Bagley

Mr. and Mrs. Gary L. Rutherford

In memory of Jim Owen

Northern Trust Bank of Colorado Edward D. White, III

Mr. and Mrs. Newell Grant

In memory of Orlo Hill

Mr. and Mrs. Robert Hoghaug Edna Aavang Ardyce Johnson Evelyn Thompson Margaret Gronseth Alice Gronseth Edna Hill

In memory of Jill and Amy Glass

Brooke and Darin Boomgarden
The Book Bin

Happy Birthday to Eileen Price

Sylvia and Irv

Susie, Mike, and The Girls

In memory of David Dickson

Mr. and Mrs. Edward Goldman





As soon as this newsletter arrives at your house, rush to the Rock Alpine Garden to enjoy the last display of crocus until autumn. While you're there, imagine yourself on a trip to Turkey, where the crocus bloom in April. The Rock Alpine garden has *CC. ancyrensis, baytopiorum, chrysanthus, flavus, fleishcheri* and gargaricus all from Turkey.

Author Brian Mathew's descriptions of their habitats in Turkey are reminiscent of the diversity of habitat in Colorado. Crocus grow in rocky places with wind-swept conifers, in short turf, in sparse evergreen woods, on limestone formations in heavy clay soils, and even in waterlogged turf near melting snow. In addition, Mathew stresses that the soil type where crocus grow in Turkey is highly alkaline. Doesn't this sound like the perfect Colorado plant?

Other April-blooming crocus in the Rock Alpine garden come from Italy, Greece, Crimea, the Ukraine, Corsica and the Alps. The genus Crocus is distributed entirely in the Old World. C. vernus does, however, cover the alpine meadows of the Alps and also the forest floor of the subalpine woodland.

Bring a little of the Alps to your yard. Plant Crocus vernus in the fall for an alpine experience next spring.

Sources in the Helen Fowler Library used for this article:

Bowles, E.A. A Handbook of Crocus and Colchicum for Gardeners. New York: D. Van Nostrand Co., 1952. SB 413 C65 B61 1952a

Mathew, Brian. *The Crocus*. London: B.T. Batsford, 1982. QK 495.I75 M38Cr 1982

Top ten reasons to visit the Community Gardens

Denver Botanic Gardens' three Community Gardens opened their gates for the 1999 season on March 27. About 250 gardeners have returned to their plots, where bulbs are beginning to show, spinach is sprouting and the possibilities for the new year are endless. Even if you are not a community gardener, you'll want to visit the Community Gardens this year, for many reasons. Here are a few:

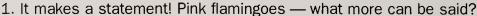
- 10. It's free! There is no admission fee, and you can bring as many visitors with you as you want.
- 9. There's food! There are yummy berries, herbs and flowers growing in "common areas" (clearly marked with a sign) that you are invited to sample.
- 8. Children are welcome! Mr. McGregor's Pick and Plant garden, right off the main parking lot, is a place where your children are encouraged to touch and taste plants and generally run amuck in a safe garden environment (while you chat with other grown-ups!).
- 7. You'll feel smart! You will be able to recognize and identify a lot of the familiar plants, even if they don't have labels.
- 6. There's variety! You'll encounter a huge diversity in the plots and the people tending them. Nowhere else



Community Gardener Jackie Breslow shows off her harvest.

can you get 250 different ideas for growing vegetables. Plus, community gardeners are generally proud to show off their work and eager to share what they know.

- 5. You'll feel comfortable! You will recognize and identify with the gardening practices. These are real people gardens. Look at some of the weedier areas, and you're sure to feel better about your own garden!
- 4. There are weeds! Many weeds are tender and nutritious in the spring. Get gourmet, organic "greens" without spending a fortune at Alfalfa's.
- 3. It's alive! The Community Gardens are completely organic and reveal incredible vitality and lots of cool spiders and other crawlies.
- 2. It's compost heaven! Each garden has working compost bins which will allow you to get a good sense of how backyard composting really works.









Wanted: smiles!

Do any of the following sound appealing to you: relieving stress, making someone smile, putting your love of people and plants together, being outdoors in the summer? These are just a few of the many wonderful benefits of being a sensory tour guide.

Sensory tours provide a garden experience for persons with special needs. The horticulture therapy program is currently recruiting for the summer season. Training begins April 30. Volunteer hours are flexible. Your time is honored and appreciated. For more information or to sign up for training, call 303-370-8020.



Learn more about spice plants from Gardens' horticulturist Julie McIntyre at "The Spice of Life: Asia and the Pacific Islands" at the Incredible Edibles program on April 10 and 11. Mangos, macadamias and a multitude of spices will be highlighted at the event which features exhibits, vendors, presentations and activities for people of all ages. For more information, call 303-370-8041.

Cherishing sprouts

Just as the first sprouts are coming up in the garden, the first "Sprouts" Tours are visiting the Gardens. These hands-on multi-sensory tours, where five-to seven-year-olds actually have a chance to dig in Mr. McGregor's Garden, are held Tuesdays and Thursdays in May, June and September. Loving guides who want to introduce children to the world of plants are needed. Sprouts training is Wednesday, April 21. Call 303-331-5777 for more information.

Take your family on a science safari

Family Science Fun Packs are a great way to learn garden physics. With the Science Safari Kit in DBG's new Family Packs, visitors can learn all about wavelengths, UV rays and color absorption in plants. Of course, this physics lesson is cleverly disguised as fun. Families using the packs will be able to watch beads change color, see the way a bee sees and test whether or not plants are really "cool."

Designed to be used by the whole family, Family Science Fun Packs are great fun even for small children, who may not understand the science but know that something wondrous is going on when things change color before their very eyes!

The bright green family packs contain extras that help make any excursion to the Gardens a hands-on learning experience, such as children's books on flowers and trees and a simple bird identification guide.

Want to explore garden physics with your children? Inquire at the gatehouse about Family Science Fun Packs. A \$3 check-out fee is required. For more information about family packs, please call 303-331-5777.

Denver Botanic Gardens 909 York Street **Denver, Colorado 80206-3799**

Return service requested

Non-Profit Org. U.S. Postage PAID

Denver, CO Permit No. 205

DON'T MISS...



Spring has sprung in the Shop at the Gardens with a lavish new selection of limited edition graphics, botanicals, cards and posters by several new artists who work in a variety of styles ranging from classic to contemporary. Also, just arrived are elegant tabletop fountains created by local artist Pamela Watter.

Green Thumb News

www.botanicgardens.org

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206

Editor: Julie Behrens Designer: Julie Rudofsky

Open daily from 9 a.m. to 5 p.m.

with extended hours May-September

General information 303-331-4000 303-370-8032 Dr. Green plant information 303-370-8068

Tues. and Thurs., 1 to 3 p.m. Planttalk (24-hour) 1-888-666-3063

recorded plant information Gift Shop 303-331-4009

Helen Fowler Library 303-370-8014 Sun. through Sat., 9 a.m. to 5 p.m.

Mon. through Fri., 8 a.m. to 5 p.m.

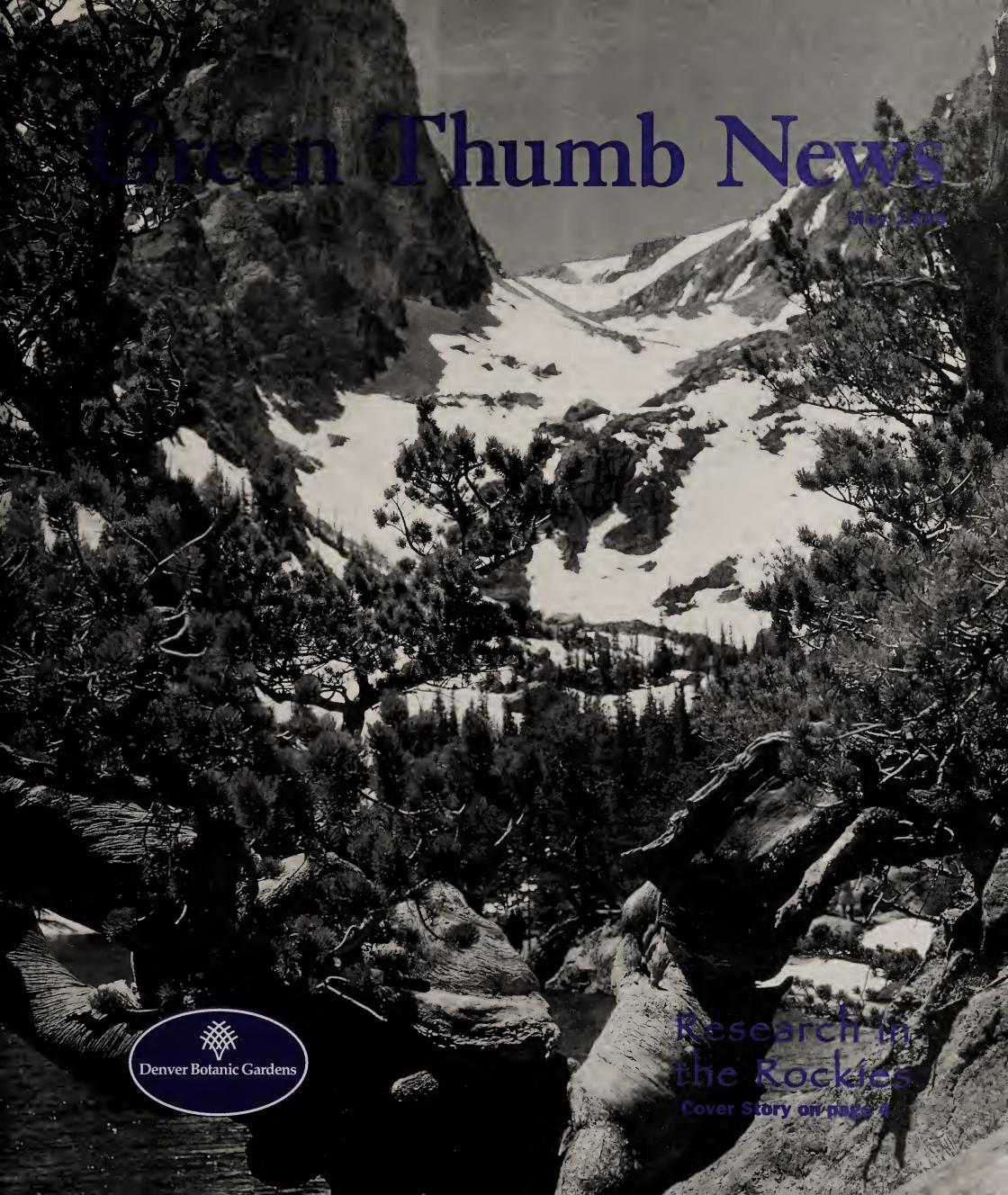
Address changes 303-370-8060 Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049 **Chatfield Arboretum** 303-973-3705

Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department.

On the cover: Crocus tommasianus by **Panayoti Kelaidis**







From the Top

News from the Executive Director

I paid an early morning visit to Chatfield Arboretum a few Saturdays ago. It was a cold day but, as always, it was such a pleasure to drive down to a truly wonderful place - one of the great resources of Denver Botanic Gardens. The occasion was a volunteers meeting and I had a welcome opportunity to meet and talk with some of the dedicated team who know and love the place and do such great things for the Arboretum. I felt a great sense of community among the volunteers and staff and also a strong dedication to developing Chatfield in a sustainable, low-impact way which respects the integrity and history of the site.

At present, Chatfield Arboretum is not well-known and is comparatively little used, except by school groups and the annual pumpkin festival when nearly 20,000 visitors make the short pilgrimage south of C-470. I know some people who would like to keep it that way. Some covet their secret place for bird watching or for a quiet walk, but the development of nearby housing communities will change that. Housing is already being built around the periphery and it is not difficult to imagine a time in the near future when our 700 acres will be an oasis of nature in the midst of developed land. At that point, our activities on the site become an important element in the lives of all who choose to live in the area as well as a continuing resource for those who come from further afield.

So what will Chatfield become? What I heard from the volunteers matches very closely the views I hear from the staff and the Board of Trustees. These groups believe that Chatfield is the perfect place to enhance visitors' knowledge of natural history, especially native vegetation and the high plains. It is also an excellent place to demonstrate human impact through agricultural use. There are, of course, many other uses. However, we must ensure that none of the changes we make alter the serene character of the Arboretum. I look forward to telling you more about our plans for this exceptional place in the future.

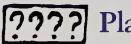
Brinsley Burbidge, Executive Director



Employee

of the Month

Congratulations to the Gardens' Accounting Supervisor, Steve Younger, April's Employee of the Month. His diligence and hard work on the annual audits have consistently received positive remarks. Steve's negotiation skills with vendors frequently secure results beyond expectation. Co-workers also appreciate his help in solving their accounting problems and his willingness to explain the process. He is quick to set aside his own deadlines to assist fellow employees when problems arise.



Plant Puzzler

Q. What poisonous plant indirectly led to the death of President Abraham Lincoln's mother?

Contributed by Selena Rossiter, DBG instructor and former Community Gardens Coordinator.

A. She died from drinking the milk of a cow that had eaten datura.



The Wild Side

News from Chatfield

Deer Creek Discovery Camp for kids

Thanks to the generous support from the W.M.B. Berger Foundation, Chatfield Arboretum will launch an exciting new program for children this summer. Deer Creek Discovery Camp will take advantage of the site's rich history and great natural diversity by providing seven to 11 year-olds with first hand exposure to the natural world. Children will engage in nature and farm life activities in the week-long program that will also include an overnight stay at the Arboretum.

Activities will include caring for animals and discovering plants and wildlife while playing among ponds, fields and woodlands. The program provides an extended opportunity for children to experience the simple enriching life of the historic farm with gardening, plenty of games and humor, home cooking and creative hands-on projects.

The fee for each week is \$90 for members and includes lunch and the overnight stay. For additional information please contact the Arboretum at 303-973-3705.



50th Annual Plant and Book Sale



For 50 years the arrival of spring has meant a May trip to Denver Botanic Gardens for a shopping extravaganza. This year the Gardens' annual sale on Friday and Saturday, May 7 and 8, will offer more than a quarter million traditional and unusual plants as well as thousands of used and new books plus magazines, compact discs, records and videocassettes.

Keeping women young at heart

Keeping Women Young at Heart is a goal of the American Heart Association (AHA). The AHA will present a day of health-oriented activities on Wednesday, May 19 beginning with an organized fitness walk through the Gardens at 7:30 a.m. Health screening tests include blood pressure, cholesterol level and body fat. Various cardiology experts will discuss women's heart-smart issues and chefs will demonstrate healthy cooking. The deadline for registration is May 7 and space is limited. The cost is \$25 and includes lunch. The west gate will be open and participants are encouraged to park their cars in Cheesman Park. To register, please call 303-369-5433.

New this year is the Members' Shopping Spree on Thursday, May 6 from 4 to 8:30 p.m. Members who already registered by April 30 will have the first pick of plants. The Gardens will be closed during the day of May 6 to prepare for the sale.

A final closeout sale will take place on Saturday afternoon at 1 p.m. when all plants and books will be marked down 50 percent, plus that additional 10 percent for members.

As always, members receive a 10 percent discount on all plant and book purchases. On Sunday from 1 to 4 p.m., shoppers can also take advantage of the book clearance sale with all of the books you can stuff into a bag for only \$3! Book Sale proceeds are used to purchase new books for DBG's Helen Fowler Library.

To celebrate the year 2000, a commemorative calendar featuring exquisite photos of Denver Botanic Gardens with monthly gardening reminders will be available. There will also be official T-shirts and posters to celebrate the 50th anniversary of the Plant and Book Sale.

An exciting change this year is the

addition of a Fall Plant Sale on September 17 and 18. The fall sale will feature peonies, daylilies, iris, chrysanthemums, perennials, orchids, bromeliads, gesneriads, cacti, succulents, spring bulbs, own-root roses, grasses, trees and shrubs and garden-grown plants. When you visit the Gardens this May and June, be sure to check out the iris and peony blooms as some of these plants will be divided and sold at the Fall Plant Sale.

All shoppers are encouraged to simplify their shopping experience by parking at the Target store in Glendale, 4301 East Virginia Avenue, and riding the free shuttle bus to and from the Gardens. Plant valets located at the main entrance will load your purchases into your vehicle. For 10 items or less, use the express check-out at the south gate in the Waring House parking lot.

The physically challenged (accompanied by one aide), members and seniors may shop early on Friday and Saturday, May 7 and 8, from 8:30 to 10 a.m. The sale opens to the general public at 10 a.m. on both days and admission is free.

The BUGS are coming! June 18 to September 19

The Gardens will buzz this summer with the sights and sounds of BUGS — friendly, nonbiting BUGS that is!

Fourteen, monster-sized BIG BUGS, which are actually works of art created by artist, Dave Rogers, will be perched throughout the gardens.

Bugaloo, an opening celebration the night of June 17 will introduce the impressive BUGS, including a family of 25-foot-long ants, a gigantic, 15-foot spider in its web, a dragonfly with a 17-foot wingspan and four-foot-wide lady bugs. Please see page 8 for more information regarding Bugaloo. Dave Rogers' Big Bugs is brought to you through support by the Colorado Rapids, New Organics Company and

the Scientific and Cultural Facilities District. Open through September 19, the exhibit will also be accompanied by a swarm of educational programs that includes children's day camps and field trips, a self-guided visitor tour and gardening-related lectures and classes.



Cover Story: Rocky Mountain research



The summer of 1999 promises to be another busy one for Denver Botanic Gardens' research staff. Rocky Mountain National Park will be the location for continuing work on a floristic inventory project that was started in 1998. The project involves collecting vascular plants to create a working herbarium that will be located at the Park. The herbarium will be used by individuals conducting research. The current project is an extension of a floristic survey of the Park's plants that was conducted from 1987 to 1992 by volunteers of the Kathryn Kalmbach Herbarium, led by Herbarium Manager, Jan Wingate. During that survey, 150 species were added to the list of plants known to live in the Park.

The goal is to collect three specimens of each vascular plant. Last summer the primary collection sites were some of the Park's more well-known areas such as Hollowell Park, Moraine Park, Wild Basin and the Hidden Valley ski area. Two methods of collection are employed. Large, permanent plots have been established to systematically track vegetation through time. Additionally, walking searches are conducted through areas of public interest to track the flowering times of specific plants. As weather permits, the team will document the springand early summer-blooming species.

Collection efforts in late July and August of 1998 resulted in the identification of more than 900 specimens representing 400 species. Through the winter, interns from the University of Denver mounted and labeled the specimens. Of special interest was documenting the occurrences of the terrestrial orchids. The August collections yielded five species. Two late-blooming species identified were the familiar green-leafed rattlesnake (Goodyera oblongifolia) and hooded ladies tresses (Spiranthes romanzoffiana).



Spiranthes romanzoffiana (left). Research Manager Carol Dawson at work in Rocky Mountain National Park (above).

During the summer of 1999 the Research Department staff will document the occurrences of rare plants. Information regarding location, number of individuals at each location, associated species, associated habitat features and possible threats to the population will be recorded. By providing baseline data, Denver Botanic Gardens' Research department plays an active role in helping the resource managers of Rocky Mountain National Park plan to ensure the long-term survival of the species.

Carol Dawson, Research Department Manager



The blue-blossomed sky pilot can be found in alpine habitats.

Plant Portrait

Polemonium viscosum

Sky pilot (*Polemonium viscosum*) is a native plant of Colorado found in the alpine tundra. Some say that sky pilot smells like a skunk. Indeed, the foliage of this colorful, high-elevation species packs a pungent odor. It is easily found where pocket gophers have disturbed the soil. The plant grows from four to 12 inches tall and has minute leaflets that are arranged in a whorl. Each royal blue flower is set off by bright orange anthers and is pleasantly fragrant.

Another clue for finding sky pilot is the buzz of activity from bees working busily among the richly colored flowers. Be a plant hunter this summer. Look for this beautiful native and decide for yourself if it smells like a skunk.

Plant Select® 1999

Spring is here and plants take precedence over all but the basic necessities of a gardener's life. The Plant Select® program has become a vital force in showcasing exceptional plants that thrive in this climate and add beauty to gardens.

Five perennial plants are the centerpiece of the 1999 Plant Select selections. 'Red Rocks'TM and 'Pikes Peak Purple'TM penstemons are colorful hybrids that offer a succession of bright rose and violet purple flowers through the summer. They promise to thrive in full sun to partial shade and are hardy to 7,000'.

Dry, sunny areas are perfect for winecups (*Callirhoe involucrata*). This low-growing native with wine-red flowers blooms from April to frost and is hardy to 8,000'. Another plant suitable for arid conditions is 'Silver Blade'TM evening primrose, an exceedingly drought-tolerant native that is hardy to 8,000'. Its silver leaves and clear yellow flowers sparkle all summer.

The final perennial offering is 'Spanish Peaks'TM foxglove. This native from Spain is virtually unknown in cultivation. 'Spanish Peaks'TM grows best in sun to part shade with moderate watering. It features spikes of raspberry rose-colored flowers in early summer and is hardy to 7,000'.

'Blue Velvet' honeysuckle is an outstanding shrub that provides long season interest. Opalescent pink flowers are showy in spring, set off by soft, blue-gray foliage. Bright red berries ripen in the summer to the delight of birds. Drought tolerant and resistant to aphids, 'Blue Velvet' will grow to 12' in sun to partial shade and is hardy to 9,000'.

For the second year, Plant Select features a recommended annual. Silver dollar plant (*Plectranthus argentatus*) is easy to grow and versatile with a wide range of uses. Heavily textured leaves of plush silver are the showcase of this beauty that may be planted in the garden or container. The popularity of water gardening has prompted the recommendation of prairie cordgrass (*Spartina pectinata*) for use as a container plant for a pond gar-

den. This native grass adds graceful form and end-of-season drama as it takes on rich golden tints in the autumn. Plan on adding Plant Select plants to your garden and be sure to shop for these superb plants at the annual Plant and Book Sale.



Two 1999 Plant Select selections: 'Spanish Peaks'TM foxglove (above) and prairie cordgrass (Spartina pectinata) (below).





Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. How important is it to "harden-off" plants before planting? If it's warm, can't they just be planted?

A. "Hardening-off" is a process of conditioning or acclimating plants that may have been in a climate-controlled situation. Plants that have been in protected greenhouse conditions often suffer if they are not gradually acclimated to the uncontrolled and unpredictable conditions of the garden. Garden centers acquire plants from many sources. Some have never been out of greenhouse conditions, while some have probably been grown

outside and may be considered "hardened." Ask questions regarding the source of the plants and where they have been grown. If there is any question, holding the plants in a protected, partially shaded area for several days before planting is a good practice.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.



Members' Shopping Spree, May 6

Members who rsvp'd to participate in the Members' Shopping Spree will have the best selection of plants on Thursday evening from 4 to 8:30 p.m. Books will not be for sale. Reservations were required by April 30.

American Iris Society Show, May 9

The High Country Iris Society will host its second annual early spring-flowering iris show on Mother's Day. The American Iris Society registered show will take place just inside the Gardens' entrance from 10 a.m. to 3 p.m. and will feature standard dwarf bearded, miniature dwarf bearded and intermediate bearded varieties. Contact Glenna Chapman, 303-660-9473, for more information or to submit a plant entry.

Deer Creek Olde Time Days, May 15 & 16

The Front Range Antique Power Association (FRAPA) will hold its eighth annual festival at Chatfield Arboretum from 9 a.m. to 5 p.m. each day. Antique cars, trucks, tractors and engines will be displayed. Visitors can enjoy plowing demonstrations, exhibitor booths and food. Admission is \$3 per car.

American Iris Society Show, May 29 & 30

The Iris Society Region 20 Show will be held from 12:30 to 4:45 p.m. on Saturday and 9:30 a.m. to 4 p.m. on Sunday in Mitchell Hall. The show is open to all gardeners and will include classes and an 18 and under youth division. Featured varieties are standard dwarf bearded, miniature dwarf bearded, species and intermediate bearded, aril and arilbred, boarder bearded, Siberian and spuria. The show will also include collections, single specimens, classics, antiques and heirlooms. For more information, or to enter a display, please contact Rob Stetson, 303-733-5709.

Sunset Garden Strolls, June 9

Visit the Gardens for an evening of jazz, blues and folk on June 9 from 6 to 8 p.m. The Alan Frederickson Jazz Ensemble, Acoustic Food Chain and Perpetual Motion musical groups will all perform throughout the evening. The cost is \$5 for adult members, \$3 for seniors and youth aged 6 to 15 and free to children 5 and younger.



Ikehana Show **Dawn Chorus Celebration (CH)**



3

Free Day at York Street



Celebrate

Bonsai Society meeting



American Iris Society Show

10

11

Colorado Cactus & Succ Society meeting

16

Deer Creek Olde Time Days (CH) **American Begonia Society meeting Colorado Water Garden Society meeting**



17-23 Celebrating Wildflowers Mycological Society meeting

18

Bonsai Society meeting



KEY FOR CALENDAR

Bold blue type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events Regular black type = Classes

(CH) = Classes at Chatfield Arboretum



FOR MORE INFORMATION:

Gardens events 303.370.8187 Plant Society events 303.370.8097 guest lectures open to the public

23

Wild, Tasty Weedies* Pots with Panache* Sunday Morning Wildflower Walk* Tea Ceremony*

30

American Iris Society Show

24

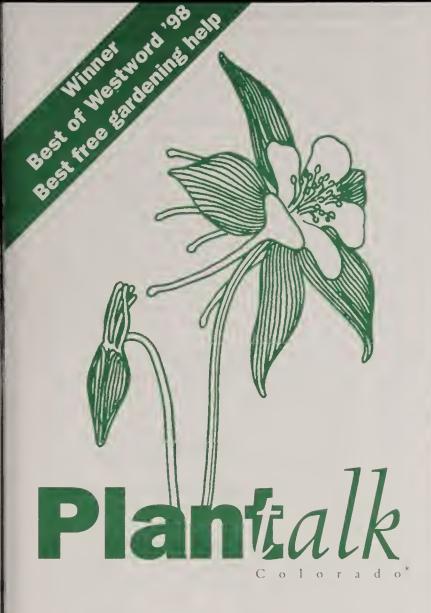
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Ultra Violet African Violet Club Floral Arranging*

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Romantic Roses* Gardens with an Altitude*

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24-hour answers for the Colorado gardener

Plant*talk* Colorado® is a 24-hour toll-free automated phone service that provides you with reliable, timely information on a variety of horticultural topics. Plant*talk* Colorado is sponsored by Colorado State University Cooperative Extension, Denver Botanic Gardens and the Green Industries of Colorado.

1999

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1119	Selecting plants	1333	Saving forced bulbs
1108	Shade garden perennials	1327	Schefflera
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1110	Using color in the landscape	1329	Succulents
1111	Using hot colors or pastels	1330	Weeping fig
	Visual screens	Inse	cts & Diseases
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Fruit	s	1420	Ants & landscape plants
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1209	Apricots	1425	Ash borers
1202	Cherries	1434	Ash plant bugs
	Currants		Aspen leaf spot
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1203	Grapes	1405	
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1206	Plums	1413	Cockroaches
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		1412	Hollyhock rust
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1302	Amaryllis	1414	Oystershell scale
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1334	Azalea, cinneraria, primrose & ranunculus	1427	Pesticides: natural products
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Mushrooms & fairy

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Patchy lawn

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2114 Winter browning of evergreens

Plantalk

Dial 1-888-666-3063

www.colostate.edu/Depts/CoopExt/PTLK/ptlkmenu.html

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Planttalk Colorado can be accessed by using any touch-tone phone. Topics range from Annuals to Xeriscape™ — and everything in between — that gardeners need to know in the variable climate and microclimates of Colorado.

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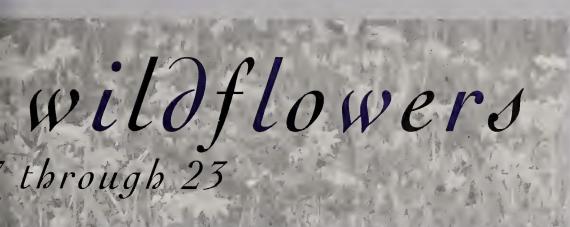




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Summer Hours begin; 9 a.m. to 5 p.m. Wednesday - Friday and 9 a.m. to 8 p.m. Saturday - Tuesday.

Ikebana Show Gloxinia Gesneriad Growers mtg.

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York Street Gardens closed Members' Shopping Spree

50th Annual Plant and Book Sale



Free Day & 11 a.m. tour
Chatfield Arboretum

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Rose Society meeting

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Deer Creek Olde Time Days (CH) High Country Judges Workshop Rocky Mountain African Violet Society meeting

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American Heart Association
Keeping Women Young at Heart
North American Rock Garden
Society meeting
Herb Society of America meeting



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Perennial Salad Garden*

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Annuals — Easy, Colorful Gardens*
Tea Ceremony*

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New Member Party for members only Shade Lovers* 27

African Violet Society meeting Gardeners of America meeting

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American Iris Society Show Bonsai Society meeting

Contemporary Containers — Learn the Art of Container Gardening*



Evergreen trees for Colorado landscapes 1705 Fall & winter interest Fall & winter watering Fall planting 1708 Fertilizing trees & shrubs Hardening woody plants Hiring a tree care company Native plants New & under used shrubs Planting trees & shrubs Preparing the planting site Pruning shade trees 1713 Pruning shrubs Renewing shrubs Roses: basics Roses: winter care 1714 Selecting shrubs 1715 Selecting trees Small deciduous trees Transplanting trees & shrubs Trees & shrubs for shady areas Vines for Colorado 1719 Watering 1720 When to fertilize When to prune trees Why leaves change color in the fall 1721 Why prune shade trees **Vegetables** Baby pumpkins Buying & hardening transplants Chile peppers 1803 1823 Collards 1804 Cool season leaf varieties Cucumbers & squash 1820 Cultural tips for leafy vegetables 1806 Growing cool season vegetables Growing great pumpkins Growing onions from seed 1808 Growing warm season vegetables Harvesting leafy vegetables 1810 Kale 1821 1811 Planning a vegetable garden Raised beds vs. rows Root vegetables 1813 1814 Seeding vegetables Spicy greens 1816 Sweet corn Tomatoes for home gardens 1818 Transplanting into the garden Vegetable harvest stories

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1909 Annuals & perennials

Watering vegetables

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Mulches





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American Iris Society Show Bonsai Society meeting

Contemporary Containers — Learn the Art of Container Gardening*

BUGaloo!



A Big Bugs opening party with a carnival atmosphere will be June 17 from 5:30 to 8:30 p.m. Don't miss meeting the Gardens' newest summer tenants and enjoy entertainment, educational activities and refreshments. The price for members is \$10 for adults and \$6 for children 6 to 15. The nonmember price is \$12 for adults and \$8 for children 6 to 15. Children under 6 are free. Invitations will be sent to members or call 303-370-8187 for information.

Summer concerts

A new brochure which includes the full summer concert line-up is scheduled to be mailed to all members in late May. All members at the \$120-or-higher levels will be mailed ticket vouchers to the summer concerts as soon as the concert brochure is available.





DBG TRAVEL ADVENTURES

Southern California Explorer Santa Barbara, Pasadena, Los Angeles and San Simeon October 5 to 10, 1999

Join other Denver Botanic Gardens' members on this fall tour of Southern California. We will visit renowned museums and gardens such as the Getty, Huntington and Lotusland. A variety of exquisite private and public gardens will allow us to see the spectacular flora of the area. Historical tours as well as special receptions and dinners are planned. And, no trip to this area would be complete without an excursion to San Simeon for a tour of the Hearst castle.



The price is \$1395 per person and includes: lodging, ground transportation, most meals, activities, entry fees and guiding services. A \$400 deposit is required. The trip is rated "easy." Walking tours of short duration and distance can be expected.

New member party set for May 26

New members are invited to enjoy the Romantic Gardens with staff on May 26 from 6 to 7:30 p.m. (In case of inclement weather, we will move into the Lobby area.) Refreshments and entertainment will be provided. Call 303-370-8018 by May 21 for reservations or 303-370-8091 if you have questions.

Comments please

Members who took advantage of the Members' Shopping Spree invitation and purchased their \$15 ticket prior to the April 30 deadline will have the best selection of plants. The Members' Shopping Spree will take place Thursday, May 6 from 4 to 8:30 p.m. This is the first year for this event. If you attend, please share your comments. You can leave a message after 5 p.m. on 303-370-8029 or e-mail Syd Glick in Membership at glicks@botanicgardens.org. Please include your name and ID number. (Please note: e-mail addresses will be used to respond to you and will not be sold, rented or exchanged.)

Give gifts the easy way!

For Mother's Day, Father's Day, birthdays and weddings give the gift of a membership to the Gardens. Please call 303-370-8029 to order by phone with your Visa or MasterCard. You may also purchase a membership by visiting the Gardens' Information Desk or Library.

Member picnic — save the date

The 1999 Members' Picnic will be held Wednesday evening, August 11. More details to come.

A plan for the future

If you left this earth tomorrow and hadn't prepared your will, how would that affect those you want to care and provide for including your spouse, children, other loved ones and friends who may depend upon you for wise planning? If you died with an outdated will (one that does not reflect your current desires), how would this affect those same cherished individuals?

When you die without a will or a proper plan for the distribution of your assets, the laws of your State will direct how your property is distributed. Can the State know the gifts you want to give to special people? Can the State know how you want to provide for family members? Does the State know what you would like to do for good friends and favorite organizations? Of course the answer is no, it can't. And, that is why planning and your will is so critical.

Your will is an important instrument in determining how your assets will be distributed after your death. Your will offers you a way to plan now for the future well-being of those you care about.

The wonderful thing about a will is the freedom it gives you: freedom to enjoy your family now, knowing that their long-term security is provided for. A will isn't the only component to prudent management and planning of your estate, but it's a good place to start.

Have you put off planning your will? Do you have an outdated will? Now is always a good time to make arrangements for the future of your family and loved ones. And, while these are important, personal matters, the validity of your plan may rest in its soundness as a proper legal document. As such, we encourage you to obtain the guidance of a qualified estate-planning professional.

We also hope you will continue your support of Denver Botanic Gardens by including the Gardens in those plans. To help get you started, the Gardens has a complimentary brochure which talks about bequests to the Gardens and describes Perennial Friends, a special group of friends to the Gardens who have included DBG in some aspect of their overall estate plans. To request our brochure or if you have any questions, please call Jennifer Darling at 303-370-8027, or complete and return the form below.

Dear Friends at the Gardens: □ Please provide me with information on including the Gardens in my will. □ Please provide me with information on other charitable gift plans that provide lifetime income. □ I have already remembered the Gardens in my estate planning. Please provide me with information on Perennial Friends. Name Address City State Zip Phone Birth date(s)

This information is needed for inquiries regarding gifts that produce income.

Mail this form to: Denver Botanic Gardens, Jennifer Darling, Director of Development,

909 York St., Denver, CO. 80206, or call 303-370-8027. Please note: Requests for information

are confidential and never represent an obligation.

Memorials and Tributes

In memory of Kai Kawahara

D. Deane Hall, Jr.

In memory of Margaret Brown

Jane B. Sheldon

In memory of Alex H. Warner

Mrs. Alex H. Warner

In memory of David Esbenshade

Mr. and Mrs. Clifford Neuroth

In memory of Alice McWhinney

Joanne Abbott

Mrs. Giles F. Filley

In memory of Jolee Trevor Brinkman

Sandra M. Foxley

Mr. and Mrs. John E. Freyer

In memory of Thomas Zagari

Mary and John Moore

In memory of Jo Robertson

Syd Glick

Margaret Wallace

In memory of Sam Abeyta

Genevieve and Joseph Gonzales

In honor of Sharon Martin

Anonymous

In memory of Marjorie Stancil Hope

Barbara Irving Casey Harriet Stancil Irving Catherine Irving Ritzdorf Virginia Irving

In memory of Geraldine Titus

Marilyn R. Girouard

In memory of Kathleen Bailey

Barbara Amdurer

In memory of Dr. Hoarce LoGrasso

Mr. and Mrs. Ib Falk Jorgensen

In memory of Mr. Burdette B. Mills Mr. and Mrs. Ib Falk Jorgensen

The perfect gift for any occasion!

Birthdays, weddings, anniversaries, holidays and more...give a gift that will last forever. Now is your chance to do something special by buying a brick paver in the Romantic Gardens at Denver Botanic Gardens. What you may engrave is limited only by your imagination (and of course space). For more information, please call Kristin Decker at 303-370-8030.







Big Bugs for little kids

Just visiting the Big Bugs exhibit this summer will fascinate children of all ages. Who wouldn't be overwhelmed when face to face with a 20-foot insect?

If your child's insect curiosity stretches beyond merely seeing bugs, consider enrolling them in a Hug-a-Bug Day Camp. This all-day program (offered twice, Friday July 9 and Friday July 16) includes classroom investigations and outdoor explorations to stimulate the best elementary-aged entomologists. Garden "expeditions" will lead young adventurers to bugs, both big and small, and creepy crawly snacks washed down with "bug juice." Insect arts are also on the agenda, along with movies, games and lots of learning.

Dave Rogers' Big Bugs Field Trips, abbreviated morning programs, are also available for groups of up to 60 elementary-aged students on Tuesdays and Thursdays in July. Students will be amazed at how much bug fun can be packed into a two-hour field trip. To enroll in either program call the registration office at 303-370-8020.

Magnificent Mt. Goliath

Enjoy the beauty of wildflowers, marvel at the grandeur of windswept bristlecone pines and admire a wealth of grand vistas as they unfold in all directions. Experienced volunteer guides will lead wildflower tours along the M. Walter Pesman Trail on Mt. Goliath on Tuesdays and Thursdays beginning June 22 and continuing through August 12, 1999. Bring your camera and capture the fabulous display of wildflowers set amidst this rugged landscape.

Mt. Goliath is located 17 miles from Idaho Springs on the road to the top of Mt. Evans. The tours are from 9 a.m. to noon and are free. Directions will be sent with



Plant Select plants have historical interest

Two of this year's Plant Select® selections, Winecups (*Callirhoe involucrata*) and Prairie cordgrass (*Spartina pectinata*), are native to the Great Plains. Both have interesting histories.

Winecups' distribution covers almost the entire area of the plains. The plant grows from Minnesota to Wyoming and south to Missouri, Texas and New Mexico.

To the Dakota Indians, winecups was used as a pain killer. A concoction was made to be taken internally. Smoke of the dried, pulverized roots was used to bathe aching body parts. The smoke was also inhaled for colds.

Prairie cordgrass also grows throughout the Great Plains. The north edge of the range is Southern Canada. The grass grows as far south as North Carolina and Texas and even appears in Oregon.

Fiber plants are not as well documented as medicinal plants in native American ethnobotany, but prairie cordgrass's English common name tells the tale of how the Omaha and Ponco used the plant. The "cords" were used to tie the earth coverings of the lodges to their supports. The grass was also used as thatch on the lodgings.

For native Americans these plants were functional. For contemporary Coloradans, winecups and prairie cordgrass provide a beautiful addition to the garden.

Sources in the Helen Fowler Library used in this article:

Flora of the Great Plains. Lawrence, KS: University Press of Kansas, 1986. QK 135F55 1986.

Gilmore, Melvin R. *Uses of Plants by the Indians of the Missouri River Region*. Enlarged ed. Lincoln, Neb.: University of Nebraska Press, 1977. E 78 .M82 G5667 1991.

Kindscher, Kelly. Medicinal Wild Plants of the Prairie: an Ethnobotanical Guide. Lawrence, KS: University Press of Kansas, 1992. E 78 .G73 K5 1992

Moerman, Daniel E. Native American Ethnobotany. Portland, OR: 1998

Vestal, Paul A. and Richard Evans Schultes. The Economic Botany of the Kiowa Indians: as it Relates to the History of the Tribe. Cambridge, MA: Botanical Museum, 1939. E 99 .K5 V4 1981



the confirmation of registration. The trail is considered moderately difficult due to the altitude (12,100 feet) and rough terrain. It is not recommended for those with a disability or for those who are having difficulty standing or walking. Dress for the weather, wear sturdy hiking shoes and bring plenty of drinking water. For further information, or to register for a tour, call the Education Office 303-370-8019 or 303-370-8020. Preregistration is required.

Denver's best coconut cream pies

If you're in the mood for outstanding coconut cream pies, look no farther. At "A Taste of the Wild: Tropical Africa," the Incredible Edibles event held on March 6 and 7, local experts determined who makes the best pies in town.

Six bakeries and restaurants participated in the professional competition on Saturday. Judges Hsaio-Ching Chou

of *The Denver Post* and Sam Arnold of The Fort restaurant sampled the tropical concoctions and named Bluepoint Bakery, 1721 East 58th Ave. in Denver the winner. The judges called Bluepoint's pie "well-balanced," noting the remarkable topping, custard and crust. Second place went to Granny Scott's Pie Shop, 3333 S. Wadsworth Blvd., in Lakewood. Coming in third was Perkins Restaurant at 1995 S. Colorado Blvd. in Denver.

In the amateur division, held on Sunday, judges John Lehndorff of *The Boulder Daily Camera*, Bill St. John of Microsoft Denver Sidewalk and Warren Byrne of KEZW's Restaurant Show dug into eight pies. Amateur bakers came from as far away as Colorado Springs to enter the competition, but is was a true hometown entry that won. Bill Voeck, the Gardens' carpenter, proved he can handle a spatula as well as a hammer by winning first place. The judges labeled his pie a "classic" coconut creation. Second place went to Kay Nash of Denver and third place to Jayme Irvin, of Denver.

Bill was happy to share the recipe:

Bill's Coconut Cream Pie	
3/4 cup sugar	1 teaspoon vanilla extract
1/4 cup cornstarch	1 cup flaked coconut
1/4 teaspoon salt	1 9" ready-made pie crust
2 cups milk	1 cup whipped cream
3 egg yolks	1/4 cup sifted powdered sugar
2 tablespoons butter or margarine	garnish: toasted flaked coconut

Combine first 3 ingredients in a heavy saucepan; gradually stir in milk. Cook over medium heat, stirring constantly, until thickened and bubbly. Cook 1 minute.

Beat egg yolks; gradually stir about one-fourth of hot mixture into yolks; add to remaining hot mixture, stirring constantly. Cook, stirring constantly, 30 seconds. Remove from heat; stir in butter, vanilla and 1 cup flaked coconut. Pour into pastry shell. Cool completely; cover and chill 1 to 2 hours.

Beat whipping cream at high speed of an electric mixer until foamy; gradually add powdered sugar, 1 tablespoon at a time, beating until soft peaks form. Pipe sweetened whipped cream onto pie. Garnish with flaked coconut. Yield: 1 9-inch pie.



The Celebrating Wildflowers Display can be viewed at the Gardens from May 17 to 23. Entrance is included with admission fee and is open from 9 a.m. to 5 p.m. Please call 303-370-8065 for information, including exploration hikes.

Awaken your senses

The Sensory Garden at Denver Botanic Gardens' Morrison Center is an intimate garden designed to appeal to all five senses. Tours of the garden encourage interaction with plants: you can pluck a cherry tomato or sample a sprig of mint, listen to the rustling of grasses, smell the aroma of old-time favorites, such as roses and petunias or feel the soft fur of the lamb's ear leaves.

The tours, which have been developed by the Gardens' horticultural therapists, are designed to accommodate persons with special needs. Daytime tours, held on Tuesdays, Wednesdays and Fridays, can include up to 15 persons, from June through September. Evening tours are also available on Tuesdays and can accommodate a maximum of six participants. At least one person in the group should have a special rehabilitative or therapeutical need as the tours have been designed to provide a stimulating experience for groups in therapy or rehabilitation programs.

All tours are free, but visitors must register four weeks in advance of attending. To register, please contact the registrar at Denver Botanic Gardens at 303-370-8020.



Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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MEET OUR NEW EXECUTIVE DIRECTOR

Members are cordially invited to become acquainted with

DR. BRIM/LEY BURBIDGE
new Executive Director of Denver Botanic Gardens

JATURDAY, MAY 15, 1999
MITCHELL HALL

8:30 a.m.

Complimentary continental breakfast by Three Tomatoes Catering

9 a.m.

Illustrated talk by Dr. Burbidge on his long-time interest, mountain plants, followed by an opportunity for him to answer your questions.

10:00 a.m.

Tour of the Rock Alpine Garden in its springtime glory.

Please call 303-370-8077 to make your reservation. Members only.

State your name, member number, phone number and how many will be attending.

Seating is limited and reservations are required.

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, C0 80206

Editor: Julie Behrens Designer: Julie Rudofsky Summer hours May through September

Open Wed., Thurs. and Fri. — 9 a.m. to 5 p.m.

 Sat. through Tues. — 9 a.m. to 8 p.m.

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

Dr. Green plant information

Tues. and Thurs., 1 to 3 p.m.

Plant*talk* (24-hour) 1-888-666-3063

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Sun. through Sat., 9 a.m. to 5 p.m.

Offices

Mon. through Fri., 8 a.m. to 5 p.m.

Address changes 303-370-8060 Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049

Chatfield Arboretum 303-973-3705
Open every day, 9 a.m. to 5 p.m.
Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Rocky Mountain National Park by Carol Dawson





From the Top

News from the Executive Director

March was a month of exciting numbers at the Gardens. The end of March saw us having an all-time high of just over 15,000 members which is something to celebrate and is surely an indicator that we are providing what the members want. Just a year ago we had 14,000. Visitor numbers for the first three months, helped by a warmer than usual winter and the attraction of the newly opened Tropical Botanica exhibit, increased dramatically. In the first three months more than 30,749 visitors attended winter events and exhibits.

Also, in the first three months of the year, the Development department came very close to reaching the entire 1999 goal for corporate sponsorships — a tremendous start to the year. This means that the events and new attractions we had planned for this year are on track and will help contribute to the overall funding of the Gardens.

The sheer size and uniqueness of the Dave Rogers' Big Bugs collection will be hard not to notice. But, let me just mention one other new attraction that you also shouldn't miss. In the coming months you'll learn more about our sister institution, the Denver Art Museum's, planned exhibition of Impressionist Paintings which will open on October 2. This will be their most ambitious exhibition to date. To complement that exhibition, we will be opening a garden on July 21 that features plants with which the French painter, Claude Monet, filled his Garden at Giverny and were the subjects of many of his paintings. Most exciting is the fact that the majority of the plants he grew will also grow very well in Denver's climate. Please see page eight for more information on this dramatic new addition to the Gardens.

Brinsley Burbidge, Executive Director



The Wild Side

News from Chatfield



Chatfield Arboretum adds new naturalist

Jackie Sanderson has recently joined the staff of Chatfield Arboretum as a naturalist. Her strong background in natural resources and environmental education and her experience reaching out to visitors at natural and historical sites are very welcome assets. Jackie has just completed six years as an environmental education specialist with the Routt National Forest near Steamboat Springs, Colorado. While there, her duties included organizing educational programs and special events, and managing the production of interpretive signs, brochures and displays.

Having just finished training the new naturalistguides at Chatfield Arboretum, Jackie is now focused on coordinating the first summer session of Deer Creek

Camp, a week-long adventure for seven- to 11-year-olds generously funded by the W. M. Berger Foundation. She is at the Arboretum Tuesday through Saturday and encourages you to stop by the Nature Center on your next visit.



The May Employee of the Month is Tiffany Jones, administrative assistant for Development and Membership. A true team player, she is always willing to help out in any department — from working the children's tattoo parlor at Goblins in the Gardens to leading Conservatory tours or planting flowers in the outdoor gardens. Tiffany's enthusiasm, commitment and overall positive attitude make her a real asset. Congratulations, Tiffany!



Q. To what toxic family does the mango belong?

This month's Plant Puzzler was contributed by Syd Glick, membership coordinator.

A. The Anacardiaceae, or cashew family, also includes the notorious poison ivy. Some people are allergic to the skin of the mango but can eat the fruit if someone else peels it for them.

Thank you volunteers!

Thank you to our enormous corps of Plant and Book Sale volunteers who have worked so diligently to make our annual event the largest volunteer-run plant sale in the country. You are applauded by thousands of eager gardeners waiting at the gate each year as well as a very appreciative staff who recognize your invaluable commitment and dedication. What could possibly make you feel more appreciated than the feeling of success because you have kept a much loved tradition going, incorporated dynamic changes and set the stage for the 51st year of this great event? Congratulations and thank you for your overwhelming support of Denver Botanic Gardens.

Joedy Arnold, Manager of Volunteer Services

Summer walks and strolls in the Gardens

Family Walkabout

A Family Walkabout is something special for the whole family to enjoy on a summer evening. This summer's Walkabout will combine theater, dance, Japanese koto music from the White Butterfly Group and a children's craft activity. Food will be available for purchase from Three Tomatoes catering or bring your own picnic. The Walkabout is Wednesday, July 7 and the gate opens at 6 p.m. You may purchase tickets at the gate: member admission is \$5 for adults, \$3 for seniors and youth; nonmember admission is \$7 for adults, \$5 for seniors and youth. This summer event is presented by The Bank of Cherry Creek.

Senior Strolls



DBG senior members are invited to gather in the Gardens for coffee and rolls and a pleasant stroll through the

grounds on the first Wednesday of the

month in June, July and August. The hours are 8 to 9:30 a.m., and senior members (65 years and older) plus one friend may attend free of charge

Sunset Garden Strolls



Enjoy the early evening pleasures of the garden with a picnic dinner and a leisurely stroll on Wednesday, June 9 from

6 to 8 p.m. The Alan Frederickson Jazz Ensemble, Acoustic Food Chain and Perpetual Motion will entertain with jazz, blues and folk music throughout the Gardens. Also, plan to return for the July 14 Stroll from 6 to 9 p.m. when Polynesia-Pacifica Foundation's fabulous fire dancers, musicians and performers will entertain in many different garden locations.

Food will be available for purchase from Three Tomatoes catering. Member admission is \$5 for adults, \$3 for seniors and youth; nonmember admission is \$7 for adults, \$5 for seniors and youth.

Sunset Garden Strolls are presented by The Bank of Cherry Creek.

Summer concerts

Irish band, Altan, will start off the 19th Annual Summer Concert Series on a lively note, Wednesday, June 16; perennial favorite, Beausoleil will entertain on Thursday, June 24. Other highlights of the summer include performances by Keb Mo on August 12 and 13 and the gypsy jazz-flamenco of Willie and Lobo on August 20.

The gates open at 6 p.m. and the music begins at 7:15 p.m. Dinner baskets may be preordered from Three Tomatoes by calling 303-433-3332 or via e-mail at threetomatoes@ibm.net. Open seating is



on the grass in the amphitheater. To order tickets or request a schedule, please call JSP Productions at 303-777-3836. The 1999 summer concert series is presented by Security Life with major sponsorship provided by Northern Trust Bank of Colorado.

Sunrise Fitness Walks



Start your Tuesday mornings off on the right foot this summer with a Sunrise Fitness Walk through the Gardens. The Cheesman and York Street

gates will be open from 7 to 8:30 a.m. and there is no charge. Sunrise Fitness walks are held every Tuesday morning from June through August.



BirdHaus Bash & Display

Whimsey and imagination take flight at the annual BirdHaus Display where more than 200 birdhouses and bird feeders will be on display throughout the Gardens, July 1 through 18. You can preview and bid on your favorite entries at the BirdHaus Bash garden party and auction on Wednesday, June 30 at 5:30 p.m. Proceeds from the auction will benefit the Gardens' youth education programs. Admission is \$20 for adults and \$10 for children 12 and younger. Please call 303-370-8021 to register. Refreshments will be provided by Three Tomatoes Catering.

True Companions

When daylilies are at their peak of bloom in June and July, it is sometimes easy to overlook the other plants that provide visual support and additional variety to the Daylily Garden at Denver Botanic Gardens. A wide range of companion plants are incorporated into this garden adding interest before, during and after the prime flowering season of the daylilies.

The bulbs, perennials and shrubs chosen as companions for this garden share the same general growing conditions as the daylilies. The early-flowering tulips, Tulipa kaufmanniana and Tulipa greigii, provide the first flowers of the season in mid-March, and are excellent for naturalizing in a sunny, well-drained site. Also known as water lily tulips, Tulipa kaufmanniana are seen in a variety of colors from white through yellow to pink and scarlet. Tulipa greigii flowers are orangescarlet with a large black blotch rimmed with yellow at the base. The foliage features distinctive reddish-brown blotches and streaks.

As spring advances, the leaves of *Iris* spuria add strong vertical accents to the

more arching foliage of the daylilies. They bloom in July in a range of colors including white, yellow and blue. The blues, in particular, provide a pleasing contrast to the daylilies, as there are no true blue daylilies. These vigorous iris grow to about three feet in height. The clumps should be lifted and divided every four or five years much like the daylilies. Another perennial providing a colorful collaboration is *Solidago canadensis* 'Golden Baby.' Sprays of golden yellow flowers contribute a spectacular show later in the summer.

Shrub roses supply structure and contrast to the planting. Prominent in the display are a number of the 'Morden' roses, developed in Canada and well-known for their hardiness. 'Morden Centennial,' a medium pink, and 'Morden Ruby,' a clear red, are recurring bloomers that keep the garden in flower through the summer. Additionally, 'Morden Centennial' offers a rich display of orange hips in the fall and winter.

Several varieties of *Buddleia davidii*, butterfly bush, stand sentinel throughout the garden. The fragrant flowers of 'Black Knight,' 'Charming' and 'White



Morden 'Centennial' rose adds interesting contrast to the Daylily Garden with lush flowers in the summer and attractive hips in the autumn.

Profusion' are a magnet for butterflies and are an attraction not to miss.

This garden is much more than daylilies, although they are the star of the show. The companions bring variety of flower and form and extend the interest through the year.

David DeRose, Horticulturist



Eupatorium purpureum

Commonly referred to as Joe-Pye weed or trumpet weed, *Eupatorium purpureum* is one of the showiest of the companion plants in the Daylily Garden. Stout stems with a distinctive burgundy color rise to a height of four to five feet bearing dark green leaves that have a heavily textured appearance. In late summer and into the autumn, clusters of pinkish purple flowers appear to float atop the sturdy plant. Many small, tubular flowers make up each flat-topped cluster and provide a stable perch for monarch and swallowtail butterflies, who find the nectar-rich flowers irresistible.

Joe-Pye weed will grow best in organically amended soils with moderate watering. The dried seed heads atop the sturdy stems provide interest long into the autumn months.



Eupatorium purpureum illustration by Jayme Irvin.

What's the Buzz

Bees...The word conjures a bit of fear in most of us. We are most aware of bees when they're buzzing around our heads and we fear being stung. But, did you know that more than 5,000 species of plants would become extinct each year if it weren't for these creatures?

While feeding on the nectar of flowers and gathering pollen to eat and store in their hives, they inadvertently perform the absolutely necessary function of pollination. Without this wondrous "accident" of nature, most of our flowering plants would be unable to set fruit and seed and most of our food sources would disappear.

Flowering plants have developed interesting strategies for attracting the "keys to eternal life" to them. The colors we enjoy and covet in flowers exist solely to please the bees. The scents of flowers have evolved over time to entice bees and other pollinators, not for our enjoyment. Flower shapes have evolved to assure maximum coverage with pollen when a



Adam Lucas, staff worker at Chatfield Arboretum, is dressed for action among the Arboretum's bee hives.

bee enters to feed. Petals act as "landing pads," enticing bees to choose them over neighboring flowers. Color markers that show up only in UV light guide bees along their path to the nectar. There are an endless variety of adaptations that flowering plants have come up with, all to attract the bee and assure their reproduction.

The next time you feel the urge to swat a bothersome bee, remember that they are responsible for over \$12 billion in produce each year. The Arboretum keeps several hives near the Pumpkin Patch to maximize pollination. Bees also pollinate a large percentage of the crops used for livestock, as well as most of the forage plants that sustain the world's wildlife. Bees are quite possibly the only creature that doesn't kill or maim another organism in order to live.

Use caution when using insecticides and herbicides in the garden. Avoid those that harm bees, and spray when they are not present. It's absolutely vital to our future to coexist harmoniously with them.

Kathy Kircher, Horticulturist, Chatfield Arboretum



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. How can I control slugs in my garden?

A. Once established, multiple approaches are usually necessary to deal with these pesky mollusks. The damage resulting from their nocturnal feeding may be difficult to diagnose, but their slimy trails usually betray them.

Start by cleaning away all debris (leaves, mulch, etc.) that provide the cool, moist habitat slugs favor. Reduce watering as much as possible. Slug baits containing iron phosphate or metaldehyde are useful when applied late in the day and the garden will not receive rain or irrigation for at least two days. Shallow pans of beer will lure slugs to their deaths. A layer of sharp, dry

material around the base of the plants will scratch and pierce their soft bodies. Diatomaceous earth and crushed egg shells are recommended, but lose effectiveness when wet. The brave may hand pick any offenders or spray them with a 10 percent ammonia solution and watch (or not watch) them writhe as they turn a milky color and die.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.

June 1-13, Watercolor Show and Sale

The 31st annual show of watercolor paintings will be juried by Susan Arndt, Chair of the Art Department at Red Rocks Community College. Many of the works have a botanic focus and all pieces will be for sale. The public is invited to the opening reception on Friday, June 4 from 5 to 8 p.m. Entrance is included with Gardens' admission. For more information, call Judy Nakari, 303-674-8244.

June 5, Old Garden and Shrub Roses

The Denver Rose Society will host an "Old Garden and Shrub Rose" display from 9 a.m. to 2 p.m. on Saturday, June 5 in the Morrison Center. Rose enthusiasts are invited to display different types of roses that bloom just one time a year as well as early-blooming shrub roses. Display is included with Gardens' admission fee. For more information, please call Millie Turner, 303-863-0830.

June 5, 6, Gabriel Foundation

A flock of exotic parrots will be in the gardens on Saturday and Sunday, June 5 and 6 from 11 a.m. to 4 p.m. These beautiful birds are presented by the Gabriel Foundation, a nonprofit organization that educates the public about parrots. included with admission.

June 6, Water Garden Society Plant Sale

The Colorado Water Garden Society's annual plant sale will be held from 10 a.m. to 2 p.m. or "sold out" at DBGs' Morrison Center. Plants from all over the country, including lilies (hardy and tropical, standard and miniature, in all colors) and marginal and bog plant varieties (both tropical and hardy), will be available. Pond fish and critters, planting containers, assorted pond care products and pond care information will also be available. Call Cyndie Thomas, 303-755-1885, for information. Free to members.

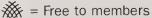
June 19, 20, Bonsai Society Show

The Rocky Mountain Bonsai Society will hold its 30th annual Father's Day weekend show featuring bonsai trees in their summer color. Experts will also be on hand to give pruning demonstrations throughout the weekend. Bonsai and supplies are for sale. The event is included with the Gardens' admission fee and is open from 9 a.m. to 5 p.m. on Saturday; 9 a.m. to 4 p.m. on Sunday. Call Stan Tarum, 303-987-0239, or Dennis DeMio, 303-617-9931, for more information.

KEY FOR CALENDAR

Bold green type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events



FOR MORE INFORMATION:

Gardens events 303.370.8187

Plant Society events 303.370.8097

Dave, Rogers'

Big Bugs

open June 18-September 19

Gabriel Foundation parrots 🔆 Colorado Water Garden 🌋 **Society Plant Sale**

7

Free Day at York Street Beginning Bonsai* Natural Moisturizer and Lip Balm*

A Fast Start to Drawing Summer Flowers* Introduction to Botanical Illustration*

1

Sunrise Fitness Walk 1-13 Colorado Watercole **Show and Sale** Tomato Garden Cafe ope **Taste Buds beverage** and snack cart open

Bonsai Society meeting Sprouts Program*

8

Sunrise Fitness Walk * Colorado Cactus & Succ **Society meeting**

Water, Water Everywhere: **Understanding Your** Irrigation System* Alpine Ecosystems*

13

Mile High Daylily Society meeting Tea Ceremony*

14

Colorado Mycological Society

Design Concepts for Landscape Plantings: Learning To Combine Plants for Interest* Floral Arranging* Art Meets Science: Botanical Illustration* Wetlands Institute*

15

Sunrise Fitness Walk **

Native Plants & Wildflower in the Landscape*

20

27

Tea Ceremony*

Rocky Mountain Bonsai 🔉 **Society Show and Sale**

American Begonia Society meeting

Dave Rogers' Big Bugs: Walk and Talk*

21

28

21-25 Deer Creek Discovery Camp* (CH) City Kids Get Green: Classroom and Schoolyard Gardens*

22

Sunrise Fitness Walk

Creating Healthy Soil* Mt. Goliath Wildflower Tour Sprouts Program* Environmental Education i an Urban Setting*

(CH) = Classes at Chatfield Arboretum

Regular black type = Classes

Sunday Morning Wildflower Walk*

29

Branch Out: Basic Plant Science* 28-July 2 Deer Creek Discovery Camp*(CH)

Sunrise Fitness Walk ** Mt. Goliath Wildflower Tou



November

- 5 Free Day & Drop-in Tour at Chatfield Arboretum
- 9 Tempel Wildflower Lecture
- 12, 13 Holiday Gift and Garden Market
 - 25 Gardens closed for Thanksgiving

bers & above

December

- 1, 2 Herald the Season for members only
 - 3 Free Day & Drop-in Tour at Chatfield Arboretum
 - 4 Tree-mendous Kickoff at Chatfield Arboretum
 - 4 Blossoms of Light Opening Ceremonies
- 4-1/2 Blossoms of Light Holiday Celebration
 - 4 Volunteer Appreciation Reception
 - 8 Holiday Concert
 - 9 Holiday Concert
 - 11 Teddy Bear Teas
 - 12 Teddy Bear Teas
 - York Street Gardens closed 9 a.m.-5 p.m. (open for "Blossoms" 6-9 p.m.)

eld Arboretum • 303.973.3705 • 8500 Deer Creek Canyon Road • Littleton, CO 80128

1999 Calend

July

1-18	BirdHaus	Bash	Displa	V
	TO THE COLD TO THE	The Court	10011	7

- 2 Free Day & Drop-in Tour at Chatfield Arboretum
- 5 Free Day at York Street
- 6 Sunrise Fitness Walk
- 7 Senior Early Morning Stroll for members only
- 7 Family Walkabout
- 8 Summer Concert Series: Karrin Allyson
- 9 Corporate Evening at the Gardens
- 9 Hug-a-Bug Camp for Kids
- 10 Mile High Daylily Society Show
- 12-16 Deer Creek Discovery Camp at Chatfield Arboretum
 - 13 Sunrise Fitness Walk
 - 14 Sunset Garden Stroll to the South Pacific
 - 16 Summer Concert Series: Kenny Rankin
 - 16 Hug-a-Bug Camp for Kids
 - 17 Dave Rogers' Big Bugs Bug Out
- 16-18 Wildflower Weekend in Breckenridge, CO
 - 18 American Iris Society Sale
- 19-23 Deer Creek Discovery Camp at Chatfield Arboretum
 - 20 Sunrise Fitness Walk
 - 21 Monet Garden Preview Party
 - 22 Summer Concert Series: Lowen and Navarro
 - 22 Monet Exhibit Opens
- 21-24 National Youth Gardening Symposium
- 26-30 Deer Creek Discovery Camp at Chatfield Arboretum
 - 27 Sunrise Fitness Walk
- 29-8/8 Glass at the Gardens Stained Glass Show
 - 30 Summer Concert Series: Rocky Padilla

r of Events



August

	~ 1					
1_8	Glass	it the	Gardens	Stained	Glace	Show
1-0	711433 6		Ciardella	Julieu	111033	TITULY

- 2 Free Day at York Street
- 2-6 Deer Creek Discovery Camp at Chatfield Arboretum
 - 3 Sunrise Fitness Walk
 - 4 Senior Early Morning Stroll for members only
 - 6 Summer Concert Series: Vinicius Cantuaria
 - 6 Free Day & Drop-in Tour at Chatfield Arboretum
 - 7 Mt. Goliath Volunteer Day
- 7, 8 Mile High Daylily Society Show
- 8-19 Rocky Mountain National Park Mushroom Hunt
 - 10 Sunrise Fitness Walk
 - 11 Members picnic for members only
- 12, 13 Summer Concert Series: Keb' Mo'
 - 17 Sunrise Fitness Walk
 - 18 Sunset Garden Stroll featuring a Romantic Evening in the Gardens
 - 20 Summer Concert Series: Willie and Lobo
- 21, 22 Rocky Mountain Koi Club Show
 - 22 Colorado Mycological Society Mushroom Fair
 - 24 Sunrise Fitness Walk
 - 25 Gardens closed
 - 26 Gardens closed
 - 26 Fête des Fleurs
- 28, 29 DBG Travel Adventure: Rocky Mountain Mushroom Hunt
 - 29 Denver Rose Society Rose Show
 - 31 Sunrise Fitness Walk
- 31-9/6 Denver Allied Arts Guild Show and Sale

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September

- 3 Summer Concert Series: Waldemar Bastos
- Free Day & Drop-in Tour at Chatfield Arboretu
- 6 Free Day at York Street
- 11, 12 Gloxinia Gesneriad Growers Show & Sale
- 17, 18 Fall Plant Sale
- 17, 18 Plant Dividend Days for members only
 - 22 Bonfils-Stanton Lecture
 - 26 Waxman University Photography Workshop
 - 30 Behind-the-Scenes Tour Arbor Circle level n

October

- 1 Free Day & Drop-in Tour at Chatfield Arboretum
- 4 Free Day at York Street
- 5-10 DBG Travel Adventure to Southern California
 - 9 Pumpkin Festival at Chatfield Arboretum
- 9, 10 Denver Orchid Society Show & Sale
 - 16 Rocky Mountain African Violet Council Fall Sale
 - 27 Bonfils-Stanton Lecture
- 30, 31 Gardens closed at noon for Goblins in the Gardens event
- 30, 31 Goblins in the Gardens for members only

2

iety

Senior Early Morning Stroll



The Perennial Advantage !!!*



3

Sprouts Program*

4

Free Day & 11 a.m. tour Chatfield Arboretum



5

Gabriel Foundation parrots

Gloxinia Gesneriad Growers mtg.
Denver Rose Society
Old Garden Roses Display

Ultracompact: Water Gardens for Very Small Spaces* Rocky Mountain Horticulture II* Photography: Coloring the Landscape*

9

Sunset Garden Stroll



10

Rose Society meeting

11

11-10 DBG Travel Adventure to the Amazon River

12

Rocky Mountain Orchid Judging

Sumptuous Succulents for Colorado Gardens* Rose Tour at Fairmount Cemetery* Tea Ceremony* Drawing Native Plants and Wildflowers at Chatfield*

16

Summer Garden Concert — Altan

Shekinah, Youth Musical
Ministry from Elgin, IL, main
entrance from 11 a.m. to 12 p.m.

North American Rock Garden
Society meeting
Herb Society of America meeting
Simple Soaps*

17

Bugaloo!

Opening Carnival for
Dave Rogers' Big Bugs (V)
17-20 DBG Travel Adventure
to Santa Fe, NM
Sprouts Program*

18

Big Bugs &

Clayton Productions Music and Dance, Mitchell Hall 12 to 1 p.m.
The Naturalist's Journal: A Way to

See, Draw and Write about Nature*

19

Rocky Mountain Bonsai Society Show and Sale

Dave Rogers' Big Bugs: Walk and Talk* Butterfly Gardening* Design and Redesign: The Perennial Process* Trough Garden Workshop*

23

Grasslands Workshop*

24

Summer Garden Concert —
Beausoleil avec Michael Doucet
African Violet Society meeting

African Violet Society mee Mt. Goliath Wildflower Tour*

25

26

Colorado Opera Troupe Performance, Mitchell Hall 3 to 5 p.m.

Bonsai Society meeting

How To Make Integrated Pest
Management Work for You!*
Great Grasses for Colorado Gardens*
Tea Ceremony*

30

BirdHaus Bash Garden Party and Auction (V)









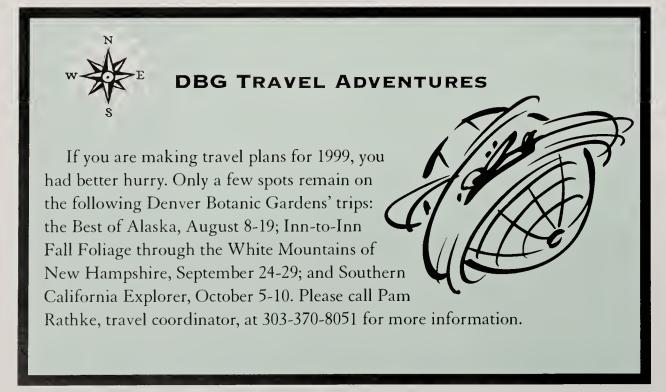




Monet's living canvas

On July 21, all members of the Gardens and the Denver Art Museum can be the first to view the beauty and tranquility of DBG's newest garden, The Monet Garden: A Living Canvas. Guests can stroll among iris, poppy and an enormous bridged waterlily pool similar to those from Monet's home gardens in Giverny, France.

Come celebrate the spirit of Claude Monet, the gardener and the artist. Dress in costume (optional), create artwork of your very own (supplies available), bring a picnic supper or order a gourmet picnic from Three Tomatoes Catering. Enjoy music by the Jefferson Symphony Orchestra and dance by Youth Ballet Colorado. Wine, beverages and light appetizers will be provided. Adult admission is \$10 and \$6 for children. Prizes will be awarded for the best period costume, most elegant picnic and best art created that evening. Sponsored by The Bank of Cherry Creek.



Buy a membership for Dad, now until Father's Day, and receive a free Sunset Garden Stroll ticket for him as well.

Summer Concerts

One of the benefits of the Arbor Circle and higher levels of membership is getting discounts on the Gardens' summer concert tickets. Members of the \$120 level receive two free tickets and higher levels receive more. The savings tickets provide can sometimes make up for the higher level of membership. If you are interested in upgrading your membership, please call 303-370-8029.

Welcome Ft. Collins Nursery!

Our newest "green industry" merchant to give discounts to all Gardens' members is located in Ft. Collins at 2121 E. Mulberry Street. Show your current membership card and receive 10% off your purchases (not to be combined with any other offer, please). They have been "turning your gardening dreams into growing realities since 1932." We hope you will visit them soon and tell them we appreciate their support!







Three Tomatoes

Three Tomatoes' Tomato Garden Cafe opens for the season.

11 a.m. - 3 p.m. — Sunken Garden

(June 1 - August 31)

Taste Buds beverage and snack cart opens for the season

11 a.m. - 4 p.m. — Oak Grove

(June 1 - August 31)

Memorials and Tributes

In memory of James C. Owen, Jr. Ms. Elizabeth O. Walker Happy 98th Birthday to Jack Weil Mr. Robert S. Appel In honor of Cal and Sheila Cleworth Ms. Janice C. Oresman In memory of Bill Akin Cherry Hills Heights Garden Club In memory of Mr. Fu Hua Chen Mr. and Mrs. Ib Falk Jorgensen In memory of Kai Kawahara Dr. Roberta K. Beach

Mr. and Mrs. Burton Lincoln

Mr. and Mrs. Rolland Hoverstock

In memory of Alice McWhinney Ms. Mary Ann Griffin In memory of Dos Chappell Garden Club of Denver In memory of Neil Pohl Mrs. Clint Darnall In memory of Gerry Titus Ms. Linda Roberts Zinn In memory of Liz Dobel's sister Katie Mr. Dave Mangano and Marcel Lisi In memory of Neva Field Mr. and Mrs. Wade L. Biggs, Jr.

Mr. and Mrs. Blake Clark

Ms. Janis Field

Bug Hugger's name

Account Number

Favorite Bug

Address

Signature

City

Don't forget your Dad this year!

Dads deserve some recognition too. Give a lasting reminder of your appreciation this Father's Day. Denver Botanic Gardens is offering its members and friends a chance to purchase named bricks in the Romantic Gardens. For more information, contact Kristin Decker at 303-370-8030.

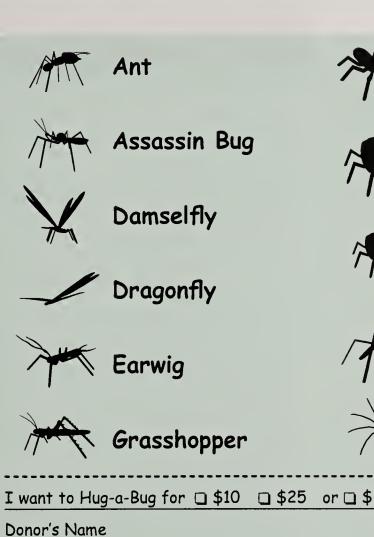
Ground Beetle

Hug-a-Bug!

In memory of of Jolee Trevor Brinkman

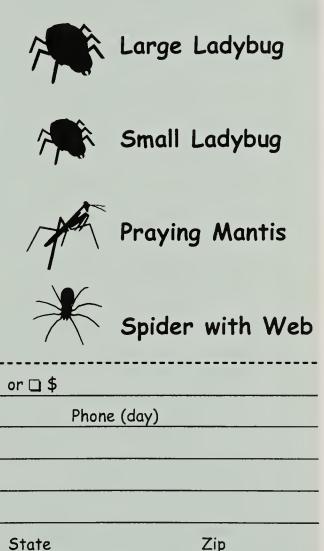
This summer, the Gardens will be swarming with enormous bugs. You have a once-in-a-lifetime opportunity to hug-a-bug by providing a cash donation in honor of your favorite creepy crawler. In doing so, your name, your child's name, or the name of someone special to you will be displayed all summer alongside your favorite bug. (Proceeds to benefit DBG's Youth Education and Outreach Programs.) Hurry, bugs will fly away September 19! Hug your favorite bug today!





Check (payable to Denver Botanic Gardens)

For information call Anita Livingston, 303-370-8185.



Exp. Date

□ Visa □ MC



My dear pests of the plains

Besides my beloved bumblebees, for whom I grow waves of penstemons, the two most obvious insects in my garden are the box elder bug and the elm leaf beetle. Box elder bugs and elm leaf beetles are definitely insects of the plains. By knowing my insects, you can probably guess my trees. I have two Siberian elms (*Ulmus pumila*) and my neighbors have a female box elder (*Acer negundo*).

The box elder bug is a native of nearly all of the United States and southern Canada and feeds primarily on the leaves and seeds of female box elders. The larvae of the elm leaf beetle, which stowedaway with the Siberian elm on its original journey from Siberia, feeds on the trees and creates little gunshot type holes all over the leaves. Typically, by midsummer, the elm leaf beetles have almost entirely defoliated my trees.

Occasionally a box elder bug or elm leaf beetle will decide my house is a better environment than their host trees. Because so few make that decision, I treat them benignly. I try to imagine the plains of Siberia and the plains of Colorado co-existing right in my backyard. The insects living with the trees help me complete that vision.

by Susan Eubank, Head Librarian

Resources from the Helen Fowler Library:

Cranshaw, Whitney. Pests of the West. Revised. Golden, CO: Fulcrum Publishing, 1998. SB 605 .U5 C7 1998

Cranshaw, Whitney, David Leatherman & Boris Kondratieff. Insects that Feed on Colorado Trees & Shrubs. Fort Collins, CO: CSU Cooperative Extension. SB 950.2 .C6 C8 1993

Philip, Hugh and Ernest Mengersen. Insect pests of the prairies. Edmonton, Alberta: Alberta Agriculture, 1989. SB 931 .P5 1989

Graduates agree: horticultural therapy works



Center for Horticultural Therapy Studies' student Susie Hunter participates in a recent class.

Horticultural therapy really works. Susie Hunter, a recent graduate of the Denver Botanic Gardens' Center for Horticultural Therapy program, will attest to that fact. As one of 24 students who recently completed their formal course work at the Gardens, Hunter is excited about her prospects of applying what she learned in the past year and a half.

Horticultural therapy (HT) is a rehabilitative practice that uses the cultivation of plants and gardening activities to improve the mental and physical health of a vast array of people including those in hospitals, nursing homes, prisons and vocational programs. Hunter enjoys working with the elderly in a long-term care setting at a job she created for herself at Harborside Healthcare, a regional nursing home management company in southern New Hampshire.

Hunter works as an intern developing and implementing HT programs in four nursing homes (where the population is older adults with a variety of limitations including Alzheimer's, stroke, diabetes and Parkinson's). She plans to convert the unpaid internship into a paid consulting position for Harborside and other elderly care facilities in her area.

"The HT courses at Denver Botanic Gardens have totally prepared me for the work I'm doing," said Hunter. "I have a good background in horticulture and some experience in human services, but the course work and what I have learned from the experiences of my classmates are the backbone of my preparation."

She also noted that she sees the results of horticultural therapy working immediately. "Residents who usually don't communicate much are talking when we do activities," explained Hunter. "They share their experiences with me and with each other. It also provides an opportunity for those who are more able to help those who are less able. The HT activities are empowering. I love to see the light in their eyes as they feel the accomplishments. HT really works."

The next opportunity to join the courses at Denver Botanic Gardens is September 16 through 19, 1999 with Introduction to Horticultural Therapy. For more information contact Christine Kramer at 303-370-8190.

Christine Kramer, HT Assistant



This BUG'S for you!

The Gardens is buzzing. The BUGS are coming! Dave Rogers' Big Bugs Exhibit invades Denver June 18 through September 19. When these 25-foot-long ants come marching, watch out!

This friendly infestation of bigger-than-life bug sculptures is the handiwork of artist Dave Rogers. Fourteen of his creatures, all crafted from natural materials, will creep and crawl throughout the Gardens. Dave Rogers' Big Bugs exhibit is free to members and is open for viewing during the Gardens' normal hours.

Bug Out

Mark your calendars for Bug Out, another day of bug celebration on Saturday, July 17 from 10 a.m to 4 p.m. The day's activities will include live insect displays, educational presentations and bug-related entertainment. Players from the Rapids professional soccer team will also be present to meet fans and sign autographs. For more information and prices, call 303-370-8187.

The Infested Festival

The Denver Museum of Natural History will host Infested Festival on Sunday, June 6 from 11 a.m. to 11 p.m. The festivities include live insect displays, bug lectures, an insect film series and a nighttime bug identification walk in City Park. Admission is \$12 for Museum members, \$16 for nonmembers, \$8 for children younger than 12. Please call 303-322-7009 to purchase tickets.

Bugs for kids

Elementary-aged entomologists will be educated and entertained at Hug-A-Bug day camps offered July 9 and July 16. Groups of young explorers can sample the world of insects at Dave Rogers' Big Bug Field Trips, offered on Tuesday and Thursday mornings throughout July. Space in both programs is limited. Please call 303-370-8020 to register.

Children who visit the Gardens during regular exhibit hours can enjoy the Big Bugs Field Guide and Coloring Book. This informational guide includes bugrelated games and activities and will also lead children on an insect safari by providing a guide to common insects.

A word for our sponsors

The Gardens would like to thank Associate Sponsors the Colorado Rapids soccer team, The New Organics Co. and the Scientific and Cultural Facilities District for their financial support. Additional donations have also been received from Monfort, Inc. and Wynkoop Brewing Co.

Bugaloo!

To welcome the BUGS, the Gardens is hosting a huge party with a carnivallike atmosphere on Thursday, June 17 from 5:30 to 8:30 p.m. Bugaloo! will feature entertainment from Bah and the Humbugs, the Last Note Singers and Metro on the Mall Choir. Guests will also be treated to free hot dogs and chips, a live insect display and the Soccer Bounce inflatable moonwalk which is being donated by the Colorado Rapids. Polish off the night with a special spider web (a.k.a. cotton candy) or by purchasing a glass of Bug Brew brewed just for this event by supporter Wynkoop Brewing Co.

Revelers will find fun and bugs throughout the Gardens. Tickets cost \$10 for members, \$12 for nonmembers and \$6 for children (free under 5), and can be reserved by sending a check to Denver Botanic Gardens, ATTN: Big Bugs, 909 York Street, Denver, CO 80206. For more information call 303-370-8187.

Bugs for grown ups

Your mind buzzes with questions. If seeing the bugs was not enough, then Denver Botanic Gardens has the programs for you. Classes range from tours with Big Bugs artist Dave Rogers to butterfly gardening.

Classes that teach about the connections among insects, plants and people will be offered throughout the summer. Please see the calendar on pages six and seven for a full class schedule or call the registration office at 303-370-8020.







Denver Botanic Gardens 909 York Street **Denver, Colorado 80206-3799**

Return service requested

Non-Profit Org. U.S. Postage **PAID** Denver, CO Permit No. 205

DON'T MISS...



They're everywhere — ladybugs, beetles, spiders, ants! You'll find them on T-shirts, caps, cards, stickers, books and bug-catcher kits. Bug on in to the Gift Shop for a huge selection of insect-inspired fashion accessories and amusements.

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206

Editor: Julie Behrens Designer: Julie Rudofsky

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

General information 303-331-4000 TDD 303-370-8032 Dr. Green plant information 303-370-8068 Tues. and Thurs., 1 to 3 p.m.

Planttalk (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014 Sun. through Sat., 9 a.m. to 5 p.m.

Mon. through Fri., 8 a.m. to 5 p.m.

Address changes 303-370-8060 303-370-8020 Class registration Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049

Chatfield Arboretum 303-973-3705 Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the gener-al public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Lady beetle sculpture by Dave Rogers. Page 7&11: © 1999 Chicago Horticultural Society. Licensed by Chicago Botanic Gardens. Drawings by Fred Furtner





From the Top

News from the Executive Director

This is my third "From the Top" article and the second which has a strong conservation focus. I'm delighted that this should be so as conservation is one area in which botanic gardens can make major contributions to the quality of life for both those we come directly in contact with and for those who may never come to a garden.

Conservation brings together so many of the activities and skills used in gardening and allows wonderful collaboration. Let's look at the M. Walter Pesman trail on Mount Goliath as an example. This unique, interpretive, high elevation trail was designed to excite and inform visitors about the spectacular diversity of plants to be found at an altitude between 11,500 and 12,500. The overall message, though, is a powerful one about the need to preserve wonderful places like this for the enjoyment of future generations.

Every department at the Gardens has a hand in communicating this message. As examples: research provides scientifically accurate information, has contributed some of the illustrations for the brochure and guides the restoration of some areas; horticulture takes responsibility for replanting and for the trails themselves; education coordinates the information; marketing produces the brochure and manages publicity; and development continues to seek the funds to make it all possible.

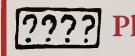
The reach of the Mt. Goliath project goes way beyond Denver Botanic Gardens. We collaborate closely with our colleagues in the United States Forest Service and we have a very close and supportive relationship with the Garden Club of Denver who supports the project financially and contributed much of the volunteer labor which makes our work so much easier. Let me, here, pay a brief but very warm, tribute to the Garden Clubs of America. They, and the Garden Club of Denver are truly marvelous supporters of a wide range of great projects throughout the country. Without their enthusiasm, their skill at raising funds and their powerful reach into the community and into halls of power, many botanic gardens projects would never become a reality.

I hope, by the time you read this, the road to the upper reaches of Mount Evans is open and you take the first opportunity you can find to enjoy this unique site.

Brinsley Burbidge, Executive Director



The June Employee of the Month is Janet Laminack, Horticultural Therapy Specialist. Beyond horticultural therapy, Janet is recognized for her involvement and teamwork with multiple committees, such as Safety, Access and Event Planning. Janet has also assumed a number of different roles — gardener, teacher, presenter and horticultural therapy volunteer trainer.



?? Plant Puzzler

Q. What is Colorado's state insect?

This month's Plant Puzzler is contributed by Rachel McKinzie, Communications Intern

A. The Colorado Hairstreak butterfly.



The Wild Side

News from Chatfield



Sixth Annual Butterfly Census

Butterfly enthusiasts are invited to participate in the Sixth Annual Butterfly Census at Chatfield Arboretum. Set for Saturday, July 17, from 10 a.m. to 1:30 p.m., this event is sponsored by the North American Butterfly Association and Denver Botanic Gardens. It will be led by Michael J. Weissmann, PhD, an entomologist with Kallima Consultants, Inc. which specializes in the design and operation of living exhibits for arthropods. There is a \$3 charge for the census recorder and nonmembers will also be charged the regular Arboretum admission fee. Participants are encouraged to pre-register with the Education department by calling 303-370-8020.

For budding lepidopterists who want to learn more about butterflies beforehand, there will be a one-hour slide presentation by Dr. Weissmann at Chatfield Arboretum on Tuesday, July 13 from 7 to 8 p.m. There is a \$3 fee for the lecture; please call the Education department to register. The annual census provides valuable information to help determine if a species has increased or decreased due to weather, habitat changes or pesticide use. Come prepared with sunscreen, water and a snack.



The July 14 Stroll will have a tropical tone.

Sunset Garden Stroll to the South Pacific

Welcome to paradise where the scent of fragrant flowers lingers in the soft evening breeze. Jungle drums and island dancers set the rhythm for your tropical sunset stroll. Entertainers from Polynesia-Pacifica Foundation of Colorado will return to the Gardens to demonstrate native customs and the energetic dances of Tahiti, Samoa, Hawaii and New Zealand. For those of you who missed their exciting performances at the opening of Tropical Botanica in November, you'll not want to miss this opportunity to witness the dramatic fire eaters!

The Sunset Garden Stroll is Wednesday, July 14 from 6 to 9 p.m. and tickets may be purchased in advance or the night of the stroll at the main gate. Member admission is \$5 for adults, \$3 for seniors and youth aged six to 15. Nonmember admission is \$7 for adults, \$5 for seniors and youth. Food will be available for purchase from Three Tomatoes catering. This special evening is presented by The Bank of Cherry Creek.



A sunset picnic with friends amidst the beauty of the Gardens and music under the stars. What a night! The 19th annual Summer Concert Series, presented by ING Security Life and sponsored by Northern Trust Bank of Colorado, began at the Gardens in June and promises a summer of magical, musical evenings.

- A sweet, cool breeze from Kansas City, Karrin Allyson will sing torchy jazz and old chanteuse standards on Thursday, July 8.
- American treasure, Kenny Rankin, will sing his popular, folk-tinged love songs as well as some of his new Brazilian-inspired music on Friday, July 16.
- Folk favorites Lowen & Navarro will entertain with their stories and acoustic folk music on Thursday, July 22.
- With a background in Southern California pop music and rap, Rocky Padilla will bring a new sound to the Gardens on Friday, July 30.

Tickets are available at the Gatehouse or through JSP Productions, 303-777-3836. The gates open at 6 p.m. and concerts begin at 7:15 p.m. Concerts are \$17 for qualifying members (Arbor Circle level and above) and \$20 for nonmembers. An additional \$2 ticketing fee is charged for tickets purchased through JSP.

Open seating is on the grass in the amphitheater, rain or shine. Dinner baskets may be preordered from Three Tomatoes catering at threetomatoes@ibm.net or 303-433-3332. Also, to avoid parking hassles, please take advantage of free shuttle service from National Jewish Medical Center, less than a mile from the Gardens. More details will be provided when you receive your tickets. Please see page 9 for information regarding romantic hotel packages at the Loews Giorgio Hotel.

Keepsakes no more?

What treasures can you donate to benefit Denver Botanic Gardens? Keepsakes are now being collected to sell during the Gardens' Holiday Market in November. Last year, members and friends of the Gardens donated items including silver, crystal, linens and lace, Hummels, jewelry, pottery and antique garden ornamentation and house fixtures.

Members of the Keepsakes Committee will gratefully accept donations at the Volunteer Office on Mondays from 1 to 3 p.m. For more information, please contact 303-370-8049 or 303-278-7566.





Birds of a feather can flock together at the BirdHaus display through July 18.

The Monet Garden: A Living Canvas PRESENTED BY US WEST

The paintings of Claude Monet strike a resounding chord in the heart of gardeners the world over. Late in the last century, Monet assembled color and form, then added the intensity of natural light and created the Impressionist movement in art. His visual sense revealed and captured the essence of landscape and garden. The Monet Garden: A Living Canvas, which opens July 22 located adjacent to the water lily pool, honors the spirit of Claude Monet the artist. Additionally, it celebrates his enthusiastic creativity as a gardener. When prosperity allowed him the opportunity to acquire his property at Giverny, he set to work creating and growing the garden that would inspire his work for the remainder of his life.

The Monet Garden: A Living Canvas strives to represent the elements of design and plants that became signature motifs of Monet's garden at Giverny.

Approaching the garden along the east/west pathway, south of Tropical Botanica, a series of iron hoops support



Cleome, heliotrope and cosmos offer a variety of color, texture and form to the Monet Garden. By Jayme Irvin.



Dahlias will be one of many stars in the new Monet Garden.

trailing nasturtiums and hop vines. The subtle color and texture of ground cover plants beneath the ornamental crabapple trees lead toward the garden and water lily pool. Combinations of bulbs, annuals and perennials occupy the garden bordering the pool. The linear arrangement of the garden recalls the style of Monet's front garden. Here, cosmos, dahlias, sunflowers, zinnias and heliotrope dance

among peonies, iris, poppies and delphinium, creating a mosaic of color and texture into the fall.

The scene is fully realized with the backdrop of the water lily pool and its rich display of aquatic plants. A bridge, reminiscent of the one Monet featured in many of his paintings, adds authenticity. The "pond edge" plantings of willows, sedges and iris embrace the water lilies that provided Monet with inspiration in his last years of life. The water lilies in the display are primarily hybrids developed by Joseph Latour-Marliac, a French nurseryman who was a friend of Monet.

The combinations of flowers, trees and the reflections they formed, along with sky and clouds on the surface of water were inspiration for Monet's creative genius. His legacy endures not only in his art but also in his passion for plants and his garden that has in turn inspired so many. Additional support for this garden by: Major Sponsor, The Bank of Cherry Creek and Associate Sponsor, Davis and Shaw Furniture Co.

Plant Portrait

Cosmos bipinnatus, Cleome hasslerana, Heliotropium arborescens

The Monet Garden presents an opportunity to grow annual and perennial plants in combinations that maximize their versatility and beauty. These three annuals are representative of many that add continuous color to the palette of the garden through the summer. *Cosmos bipinnatus* (cosmos), illustrates how effective a simple flower form can be when used in quantity. These daisy-like flowers in shades of pink and white with yellow centers rise above finely textured foliage that adds contrast to the heavier leaves of iris and Oriental poppies.

Heliotropium arborescens (heliotrope) brings a darker hue and heavier texture to the palette, plus a sweet scent. Large clusters of deep violet-blue tubular flowers are attractive to butterflies. Rising above the scene, Cleome hasslerana (spider flower) commands attention with its large, rounded, pink flowerheads. The heavily scented spider-like flowers feature elongated, prominent stamens.

These annuals along with others in the garden thrive in full sun with moderate watering. Just as Claude Monet relished the incredible show of color from annuals in his garden, you can also enjoy a colorful living canvas in your own home garden.

Cover Story: **Mountain Magic**



Volunteers worked in unison last August to complete an alpine garden.

In 1948, Denver Botanic Gardens signed a Memorandum of Understanding with the United States Forest Service to establish a trail and develop interpretation at Mt. Goliath, a dramatic site along the Mt. Evans Scenic Byway road. This partnership resulted in construction of the M. Walter Pesman Trail, bordered by more than 150 species of native wildflowers, some indigenous only to this mountain.

Through the years, many visitors have enjoyed the 1.5 mile trail that begins in the tundra at 12,152 feet and descends through a stand of 1,500-year-old bristlecone pines to subalpine terrain at 11,540 feet. Time, however, has taken a toll on the trail. Four years ago it became evident that the lower end of the trail was eroding and much of the vegetation was being lost as hikers strayed from the original path and grooved out "socially braided trails."

Realizing the magnitude of a project that would "fix" the trail, DBG and the Forest Service joined forces with Garden Club of Denver to accomplish the task of redesigning the lower 800 feet of the trail. The vision of the project was much broader than just repairing the trail. Docents were trained to educate others about the uniqueness of the site and tours were scheduled. An updated Mt. Goliath wildflower brochure, trail signage, herbarium sheets and exhibits were created. Interns were commissioned to inventory plants and fund-raising to support the project was never-ending. However, the actual work on the trail has not yet been completed.

The partnership sought the needed expertise to direct and coordinate the building of the trail. In 1997 the project was presented to Volunteers for Outdoor Colorado. They promptly designated it a major enterprise for 1998. Work on the trail design proceeded, including a section of universally accessible (handicapped) trail. DBG enlisted the expertise of landscape designer Zdenek Zvolnek of the Czech Republic and his Welsh colleague, Joyce Carruthers, to join in the effort at Mt. Goliath in July 1998. With their assistance, the highest alpine rock garden in the world was created at the lower trailhead. On August 22 and 23, 1998, 230 volunteers assembled to build the improved trail, making the dream a reality.

This year, work on the project continues. On August 7, volunteers will concentrate on "fine-tuning" the trail. The revegetation and propagation of native grasses, sedges and wildflowers for the site will be ongoing. Well beyond the partnership's imagination, the project received a grant from the Colorado Department of Transportation to build a Nature Center and restrooms at the lower trailhead near the alpine garden. Construction will begin this summer. Additional grants will provide educational opportunities for those who visit the Nature Center as well as for schools to use during the winter months.

The trail and garden on Mt. Goliath expands the scope of Denver Botanic Gardens. It will continue to inspire and educate visitors from around the world who visit each year. To schedule a wildflower tour through August 12, please call 303-370-8020.

Shirley Johnson, U.S. Forest Service, Garden Club of Denver Jane Davis, Garden Club of Denver



The Colorado state flower, Aquilegia caerulea, is abundant along the Pesman Trail.



Tuesdays in July, Free T'ai Chi

Free T'ai chi chuan lessons at the Sunrise Fitness Walks, Tuesdays in July, 7-8:30 a.m.

July 7, Family Walkabout

This summer's Family Walkabout combines theater, dance, Japanese koto music and a children's craft activity. It's a perfect opportunity to view the BirdHaus display and Dave Rogers' Big Bugs. The Walkabout is Wednesday, July 7 from 6 to 8 p.m. Member admission is \$5 for adults, \$3 for seniors and youth aged six to 15. Food will be available for purchase from Three Tomatoes catering or bring your own picnic dinner. Presented by The Bank of Cherry Creek.

July 10, Mile High Daylily Society Show

This year the Mile High Daylily Show will feature daylilies from several classes including miniatures, larges, seedlings and popular daylilies. Come and check out the latest in daylily floral arrangements. Judging will begin at 6:30 a.m. until noon; the show will be open to the public from noon until 4 p.m. For more information, call Jim Schneider at 303-790-4045.

July 18, Iris Society Plant Sale

The American Iris Society will hold its annual sale at the Gardens on July 18 from 9 a.m. until 3 p.m. A variety of plants in all colors will be available for sale including dwarf, intermediate, tall bearded, and aril-bred iris. Most of the irises have been donated by members. Information will be provided on the growth and care of irises. Admission is included with the general Gardens' fee. For details, call Mark Timonier at 303-456-5742.

July 29-August 8, Glass at the Gardens

Almost every technique of stained glass will be represented at the 20th Annual Glass at the Gardens Stained Glass Show and Sale. Blown glass, painted, pieced, copperfoiled and etched glass will all be presented and for sale. Entrance is included with the Gardens' general admission fee. This event will be open during regular Gardens' hours. For more information, call Gene Lacy at 303-770-5263.

July-October, Free Composting Classes

Denver Recycles is offering free, two-hour backyard composting classes. Please call 303-640-0678 for details.

KEY FOR CALENDAR

Bold red type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

Regular black type = Classes

(CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION:

Gardens events 303.370.8187

Plant Society events open to the public. Call 303.370.8097 for information.



FLOCK TO THE GARDEI FOR THE BIRDHAUS DISI **JULY 1-18**

Independence Day

Free Day at York Street

Sunrise Fitness Walk **Bonsai Society meeting** Big Bugs Field Trip*

Iridescent Buzzing Bombe Hummingbirds* Mt. Goliath Wildflower Tou



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Spider Workshop — Friend or Foe* Japanese Tea Ceremony* Water Garden Society Pond Tour and Picnic*

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12-16 Deer Creek Discovery Camp Chatfield Arboretum

Mycological Society meeting Gouache for Botanic Illustration* Deer Creek Discovery Camp* (CH)



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Sunrise Fitness Walk 🛪 **Cactus Society meeting**

Big Bugs Field Trip* **Butterfly Presentation*** Mt. Goliath Wildflower Tou

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25

Carnivorous Plants*

Homestyle Tinctures*

Japanese Tea Ceremony*

American Iris Society Sale 💥 **Begonia Society meeting** Gardening with Herbs* Sunday Morning Wildflower Walk* 19

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19-23 Deer Creek Discovery Camp

Chatfield Arboretum

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Sunrise Fitness Walk **Bonsai Society meeting**

Big Bugs Field Trip* Summer Flower Arranging Mt. Goliath Wildflower Tou



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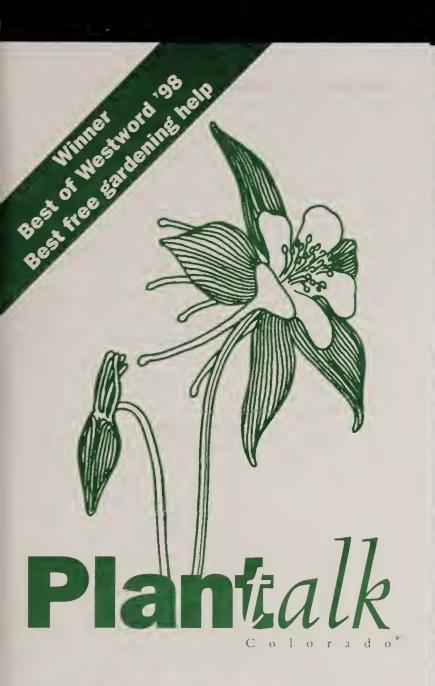
26-30 Deer Creek Discovery Camp

Chatfield Arboretum

Sunrise Fitness Walk

Big Bugs Field Trip* Mt. Goliath Wildflower Tou





24-hour answers for the Colorado gardener

Plant*talk* Colorado® is a 24-hour toll-free automated phone service that provides you with reliable, timely information on a variety of horticultural topics. Plant*talk* Colorado is sponsored by Colorado State University Cooperative Extension, Denver Botanic Gardens and the Green Industries of Colorado.

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1703 Buying trees & shrubs
1704 Dwarf & specialty conifers

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2014 Hail damage

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2102 Canada thistle

2103 Colorado noxious weeds

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2105 Desiccation in woody plants

2106 Dwarf mistletoe

2107 Edema

2108 Musk thistle

2109 Puncture vine

2110 Purslane

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2112 Tree leaf scorch

2113 Why so many weeds

2114 Winter browning of evergreens

Plantalk

Dial 1-888-666-3063

www.colostate.edu/Depts/CoopExt/PTLK/ptlkmenu.html

About the Service

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2





1-18 BirdHaus Bash Display
Go Herbal to Garden Concerts*
Mt. Goliath Wildflower Tour*



Free Day & 11 a.m. Tour
Chatfield Arboretum



3



Senior Early Morning Stroll
for members only
Family Walkabout
Illustrating Medicinal and Edible
Plants of Colorado*
The Bugs and Bees: Looks Aren't
Everything or Are They?*

Summer Concert Series: Karrin Allyson

Rose Society meeting
Big Bugs Field Trip*
Mt. Goliath Wildflower Tour*



Corporate Evening at the Gardens Hug-a-Bug Camp for Kids

Wild Basin, Rocky Mountain National Park*



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Mile High Daylily Society Show Rocky Mtn. Orchid Judging Center Gloxinia, Gesneriad Growers mtg.

Watercolor Painting*
Introduction to Backyard Composting*
Summer Rose Care*
Japanese Tea Ceremony*



14

Sunset Garden Stroll to the South Pacific



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Big Bugs Field Trip*
Drawing Alpine Flowers at DBG
and Mt. Goliath*
Aromatherapy: Part I* (CH)
Mt. Goliath Wildflower Tour*



Summer Concert Series: Kenny Rankin 16-18 Wildflower Weekend in Breckenridge, CO Hug-a-Bug Camp for Klds



Bug Out!

Butterfly Count* (CH) Close-up Flower Photography* Brainard Lake*



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The Monet Garden Preview Party

Herb Society of America meeting North American Rock Garden Society meeting 22

Summer Concert Series: Lowen and Navarro Monet Exhibit Opens

Aromatherapy: Part II* (CH)
Mt. Goliath Wildflower Tour*
22-24 National Youth Gardening
Symposium*



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Tour to ForestEdge Gardens*

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Tour to ForestEdge Gardens*
Boreas Pass*
Japanese Tea Ceremony*



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29-8/8 Glass at the Gardens Stained Glass Show

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Summer Concert Series: Rocky Padilla 31

Bonsai Society meeting

Stepping Stones* Natural Soap*





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Stepping Stones* Natural Soap*







A LIVING CANVAS

Be the first to view the new Monet Garden!

Members of Denver Botanic Gardens and members of The Denver Art Museum are invited to the opening of

Members of Denver Botanic Gardens and members of The Denver Art Museum are invited to the opening of the new Monet Garden on Wednesday, July 21 from 6 to 9 p.m. You will receive a detailed invitation in the mail or call 303-370-8021 for information. Presented by US West, sponsored by The Bank of Cherry Creek, Davis and Shaw Furniture Co. and The Denver Post, and supported by Wynkoop, J.J. Blank Engineering and Bouquets.

Members' annual picnic

Members are invited to join us at our annual member picnic from 6 to 8 p.m. on Wednesday, August 11. Free hot dogs, juice and chips will be available or bring your own picnic. Musical entertainment will be provided by Barrel-O-Monkeys, an Up With People alumni group. Face painting and other children's activities will be offered. Please send in your reservations by August 6. Please call 303-370-8091 for more information. No phone reservations will be accepted.



DBG TRAVEL ADVENTURES

TRAVEL 2000!

Next year promises many exciting adventures for the intrepid traveler. Starting in April, visit the incredible spring blossoms of the Carolina Coast. In May, explore the tropics with a Hawaiian Three Island Odyssey. Join Rob Proctor in June to travel The Impressionists' Road to Paris, Giverny and several small towns in Provence, France. This trip will be of particular interest to painters and photographers. In July, search for wildflowers near Aspen during the 8th Annual Wildflower Weekend. In August, hike the Canadian Rockies with photographer Charles Mann on a week-long wildflower excursion. Leaving the best for last, join other Gardens members in October for a unique 18-day exploration of China. Summer weekend tours will also be arranged. Look for the travel brochure in the October issue or call Pam Rathke at 303-370-8051 for more information.

Name exchange

DBG periodically exchanges members' names and addresses with other similar museums and organizations. If you do not want your name given out, please call membership at 303-370-8029 and speak to Syd Glick or feel free to leave a message. Be sure to include your membership number. (An "Opt Out" code will remain on your record until you request that it be removed.)

Member benefits

Please note that activities that are free to members are noted in the newsletter's centerfold calendar using the Gardens' logo symbol. New this summer, there will be several evenings when performers will be in the Gardens for visitors' enjoyment — at no additional cost. Come take a relaxing walk through the flowers and cool off after a warm summer day.

Also, just to remind you, the following garden and floral stores give discounts to all our members: 10% discount at Birdsall & Co., Ft. Collins Nursery, Logan St. Gardens, Smith & Hawken Denver store and Tagawa Garden Center and Florist.

Discounts for \$120 Botanist Club members and higher members: 10% at Tagawa Garden Center and at Wild Flowers; 15% at Echter's, Smith & Hawken Denver store, Logan St. Gardens and Birdsall & Co. (nursery stock only); 20% at Bouquets in Denver and Beaver Creek, and Fantasy Orchids.

Please tell them that you appreciate their support of the Gardens!

Strolls for seniors

Senior members have two more opportunities to come enjoy the cool of the morning and stroll the Gardens with a guest. The remaining dates are July 7 and August 4 from 8 to 9:30 a.m. See you there!



Dave Rogers' Big Bugs: Corporate sponsors, Colorado Rapids and The New Organics Co. The 1999 Garden Concert Series: Presenting Sponsor, ING Security Life, Major sponsor, Northern Trust Bank of Colorado and Associate Sponsor, Loews Giorgio Hotel. Sunset Garden Strolls: Presenting Sponsor, The Bank of Cherry Creek. BirdHaus Bash: Associate Sponsor, Vectra Bank. The Monet Garden: A Living Canvas: Presenting Sponsor, US West, Major Sponsor, The Bank of Cherry Creek and Associate Sponsor, Davis & Shaw Furniture Co. The annual Corporate Evening at the Gardens will be held on July 9 from 6 to 8 p.m. This evening honors and thanks the Gardens' corporate donors, their employees and families.

Color experts partner to benefit youth programs

Guests of the Color Seminar on May 26 enjoyed tips for including color in their home, garden and wardrobe from dynamic presenters including Marianne Resmann, from Ralph Lauren Fabrics in New York, Lauren Springer and Charles Smith. A delicious lunch at the Waring House brought the event to a perfect close. The Color Seminar was generously sponsored by Oliver Walker & Company and Colorado Homes & Lifestyles magazine. All proceeds from the event benefited the Gardens' youth programs.



The perfect gift for any occasion! Give a gift that will last forever. Now is your chance to do something special by buying a brick paver in the Romantic Gardens at Deuver Botanic Gardens. What you may engrave is limited only by your imagination (and of course space). For more information, call Kristin Decker at 303-370-8030.

Memorials and Tributes

In memory of Mrs. George Robinson

George Wilfley

Harriett L. Rydstrom

Mr. and Mrs. Charles C. Gates

The Garden Club of Denver

Mr. and Mrs. Thomas E. Taplin Mr. and Mrs. Harley G. Higbie, Jr.

In memory of Kenny Kroh

Jean T. Peters

In memory of Rendle Myer

Mr. and Mrs. Ib Falk Jorgensen

In memory of Mrs. Ann Love

Mr. and Mrs. Charles C. Gates Mr. and Mrs. David R. McWilliams

The Perennial Garden Club Barkley L. Clanahan

In memory of Harry Kuesel

Syd Glick

In memory of Frances Downer Hough

Dorothy W. Davis

In honor of Mrs. Thomas E. Taplin

John Evans

In memory of Jim Owen

Mr. and Mrs. Thomas E. Taplin

In memory of Eleanor Broyles Jane Wainwright

In memory of Mildred Ehrhart Syd Glick



A musical evening

Loews Giorgio Hotel is offering a "Music Under the Stars" package for summer concert evenings! The package includes a luxurious guest room, picnic basket to take to the Gardens concert, complimentary transportation to and from the Gardens and continental breakfast for two. The package for two is \$139. Please call Loews Giorgio Hotel at 303-782-9300 for more information. (Limited availability.)





I love nasturtiums! Their beautiful big round leaves and bright, orange flowers make me happy when I see them rambling over entire front yards. I haven't seen that much in Denver, but in the San Francisco Bay area nasturtiums can take over entire sections of yards. How glorious! We speculate that Claude Monet must have loved his nasturtiums too. They were and are a major part of the Grand Allée at his garden at Giverny.

The common nasturtium (*Tropaeolum majus*) is from Columbia and Bolivia, but there is so much variation in the garden varieties that many of these are hybrids of other nasturtium species. The plant first came to Europe in 1684 and was primarily cultivated as an edible plant. Its seeds are pickled as caper substitutes and the flowers and leaves are very tasty. Let's see if we can cover a few Denver front yards with this wonderful plant, as well as our own Grand Allée in our Monet Garden!

Susan Eubank, Head Librarian

Resources from the Helen Fowler Library:

Coats, Alice M. Flowers and their histories. London: Hulton Press, 1956. SB 404.5 .C587FL Stuart, David. Plants from the past. New York: Viking, 1987. SB 404.5 .S8 1987 Taylor's guide to annuals. Boston: Houghton Mifflin, 1986. SB 422 .T39 1986

Teaching assistants needed

Offer your assistance and the rewards are many. The adult education program is searching for additional teaching assistants for fall and spring classes. If you enjoy the Gardens' adult classes and are willing to help a teacher with the slide projector and copying materials, you can be trained to assist and also enjoy the class free of charge.

A mandatory training session, covering everything from the inside story on copying machines to the idiosyncrasies of slide projectors, will be held on Saturday, September 11 from 9 a.m. to noon in Classroom A in the education building. If you're interested in assisting, please call 303-370-8019 to register.

The National Youth Gardening Symposium. Growing strong!

The Gardens is honored to host the American Horticulture Society's Youth Gardening Symposium July 22 to 24. Educators, landscape designers and youth garden coordinators from all over the country will be in town to share ideas and learn new ways to help kids garden. Gardens' staff will showcase intergenerational gardening techniques and innovative theme tour programs at two workshops, while other speakers will present techniques for linking gardens to computers and the basics to starting a school garden. For more information and to register, call AHS at 1-800-777-7931.

Rushing returns



Felder
Rushing, the
hilarious (yet
serious) BonfilsStanton lecturer
who amused us
with the world
travels of his
pink flamingo,
will return to the

Gardens at 7 p.m. on Thursday, July 22 to present Gardening With, or at Least Like, A Kid. Rushing, who inspires his audiences to think like children, packs his fast-paced presentation with ideas already thoroughly kid-tested. Learn from the experiences of young gardeners across the South, and leave laughing – the only way to grow with kids.

Cost is \$8 for members and \$12 for nonmembers. Call the registration office at 303-370-8020 to register. Note that this presentation will take place at the University of Denver.

Bug Out! RAPIDly approaches



Players from the Colorado Rapids will be one of the many participants at the July 17 Bug Out event.

Players from the Colorado Rapids soccer team, Associate Sponsor of Dave Rogers' Big Bugs, will be at the Gardens from noon to 1 p.m. on Saturday, July 17 to sign autographs and meet fans. This visit from several of Denver's sports stars is just one highlight of Bug Out, an educational day designed to entertain guests and celebrate the diversity and importance of bugs in our environment. At this family-oriented event, from 10 a.m. to 4 p.m., visitors can learn, leap and laugh while enjoying a summer day wandering among the blooming gardens and buzzing Big Bugs.

Learn if bees sneeze during University of Wyoming Professor James Wangberg's fun talk, "Do Bees Sneeze?" in Mitchell Hall. Besides showing slides of insect oddities from all over the world (like the circus beetle that smells like a skunk and the beautiful flower mantis), Professor Wangberg will have live, giant

Madagascar hissing cockroaches available to hold and listen to. He'll also identify any insects brought in by visitors. Exhibits of insects and insect information will be available all day. DBG horticulturists will also be displaying carnivorous plants, so watch out!

Leap into the Colorado Rapids' Soccer Bounce, an inflatable moonwalk especially for children.

Laugh as you listen to "A Tale of Ten Bugs" presented by Colorado State University (CSU) Professor and Entomologist Whitney Cranshaw. He will educate about backyard bugs at 10 a.m. and again at 2 p.m. in the amphitheater. Children and their parents can also enjoy puppet antics in "The Bug Show," presented by CSU graduate students.

Bug Out is free with admission. No reservations are necessary, just stop by and enjoy the day!



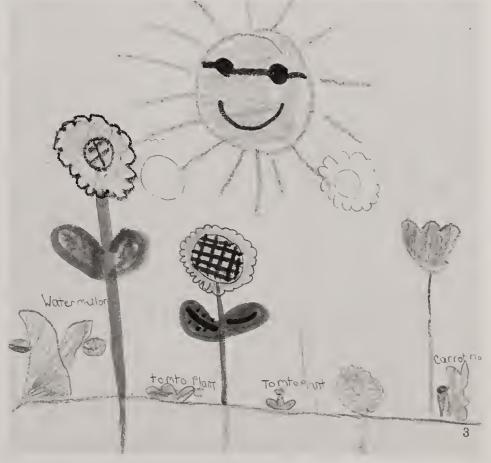
Sprouts tours garner comments

"Thank you for letting us come. I just loved the radishes," wrote one second-grader after a Sprouts tour. Her classmates commented on all aspects of the Sprouts program, the hands-on tour offered for 4-to 7-year-olds.

On picking and tasting: "I liked the part where we could eat the lettuce and spinach leaves. I knew it was lettuce because I eat lettuce a lot and I didn't like spinach." On smelling plants: "I still remember how nasty one smellt." On looking at the weeping beech tree: "And the monster tree, it was fantastic, it looked like a monster coming at you."

On Snappy the Scarecrow and his friends: "I liked the pupits (sic)." On our fantastic volunteer guides: "You were very very very nice and funny." Overall: "I am glad you let us come. Thank you! It was exciting! I hope I can return. Thanks."

On plants: "We need plants to make our Earth nice." We at the Gardens couldn't have said it better!



Children in the Sprouts program begin learning about plants at a very early age.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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JUN 21 1999

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Introducing the first ever Denver Botanic Gardens calendar. This Year 2000 calendar features stunning full-color images by professional photographer Jim Havey. Gardens' staff and guest experts also provide yearlong gardening tips and background on each featured garden. Priced at \$11.95, this visual delight is available now in the Gift Shop or by mail by calling 303-370-8076.

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky

Hours

Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

 Tues. and Thurs., 1 to 3 p.m.

Plant talk (24-hour) 1-888-666-3063

recorded plant information

 Gift Shop
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 Helen Fowler Library
 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

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Mon. through Fri., 8 a.m. to 5 p.m. Address changes 303-370-8060 Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055

303-370-8049

303-973-3705

Chatfield Arboretum

Volunteering

Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Hymenoxys grandiflora by Panayoti Kelaidis Page 7: Drawings by Fred Furtner. © 1999 Chicago Horticultural Society. Licensed by Chicago Botanic Gardens.

Green Thumb News.

August 1999



Wonderful water lilies

Cover Story on page 4



From the Top

News from the Executive Director

Spring has sprung, the Gardens are looking truly wonderful and our summer events program is in full swing. We don't need to tell you all that: you are already enjoying it! So let us instead tell you about a great day that set the scene for an exciting future for "your garden," Denver Botanic Gardens. As this is so important we've taken the unusual step of doing this From the Top column together.

The Board of Trustees held a retreat on May 25th with the purpose of reviewing the future direction of the Gardens with the Executive Director. The day was also used to explore possible new initiatives and three very important areas were unanimously agreed upon to receive attention and support from the Trustees.

First, is to increase our efforts in developing world-class plant collections. Over the coming years, you will see some major changes in the attention we give to building and displaying collections. Orchids will be the first collection to receive this attention.

Second, the Gardens will begin increasing the resources we put into interpreting the plants for our visitors. At present, most of the plants are labeled but we would also like to provide many of the fascinating details about these plants in order to make a visit to the Gardens a more informative experience. Making that information accessible to all our visitors will be an exciting initiative for the Gardens.

The third area for enhancement is very much behind the scenes. We already are involved in several valuable aspects of the conservation of rare and endangered species as well as plant surveys of important areas such as Rocky Mountain National Park. Our continued successes in this area can make a major difference to the status of wild plants in the Front Range and in Colorado as a whole.

Our planning retreat was very productive and these are just a few of the exciting things we plan to do or do better in coming years. We'll let you know as our plans are developed.

> Cal Cleworth President, Board of Trustees Brinsley Burbidge, Executive Director



The Wild Side

News from Chatfield

Crafters and artisans needed for the 11th annual Pumpkin Festival

Chatfield is seeking crafters and artisans for its 11th annual Pumpkin Festival on October 9. The very popular autumn event, which is now a family tradition in southwest Denver, last year attracted nearly 17,000 participants eager to pick pumpkins from the site's 4-1/2-acre pumpkin patch and browse the dozens of crafter and artisan booths.

Booth space is \$150 and includes a 10-foot by 10-foot tent, an eight-foot table and two chairs. Booth space is \$130 without a tent. Exhibitors are responsible for staffing their booths from set-up through take-down. Set-up time is from 6 to 8:30 a.m. and the festival ends at 5 p.m.

Handmade items at last year's festival included windsocks, Halloween costumes, wooden and pottery items and jewelry. For information and an application, please call 303-973-3705. The deadline for applications is September 10.



Employee

of the Month

Congratulations to the June Employee of the Month, Benny Juarez, Special Events Coordinator. Benny's enthusiasm and positive attitude rubs off on colleagues and visitors, helping to make our events more enjoyable. Benny was instrumental in contributing to the success of the Plant Sale through his organization, initiative and ability to stay cool when problems arose.

???? Plant Puzzler

Q: Monet wanted to cut down some trees in the Grand Allée at Giverny to allow more sun in the garden for his roses but the lady of the house liked the trees. She finally compromised and said he could cut one kind of tree but had to keep her favorite. What trees were they?

This month's Plant Puzzler was contributed by Susan Eubank, Senior Librarian.

the trees and eventually killed them. spruces for her, but his roses clambered into W: He cnt down the cypreses and kept the



Summer Concert Series in full swing

The Summer Concert Series is in full swing during August with performances by Vinicius Cantuaria on Friday the 6th, Keb' Mo' on the 12th and 13th (sold out), Willie and Lobo, Friday the 20th, and Leon Redbone on Friday, August 27. Be sure to check on ticket availability as some performances may be sold out. The Summer Concert Series ends on an international note with the harmonious sounds of African pop, influenced by Brazilian and Portuguese rhythms with Waldemar Bastos and his band on Friday, September 3.

The gates open at 6 p.m. and the music begins at 7:15 p.m. Dinner baskets may be preordered from Three Tomatoes by calling 303-433-3332 or via e-mail at threetomatoes@ibm.net. Open seating is on the grass in the amphitheater. Call 303-777-3836 for tickets and information. Summer concerts are presented by Security Life with major sponsorship provided by Northern Trust Bank of Colorado.



Guests are invited to enjoy an evening of fragrant blossoms and chocolate in the Romantic Gardens on August 18.

A romantic evening

As fragrant blossoms scent the air with their lovely perfume, the lyrical music of Padame Om and Kitar will set the mood for a Romantic Evening in the Gardens — the perfect setting to stroll hand in hand with your special someone on a gentle, summer evening. Find an intimate corner to enjoy a picnic supper from home or a light, gourmet meal from the Tomato Garden Cafe. Complimentary chocolates and pastries will be served and long-stem roses and glasses of wine will be available for purchase. Visit the beautiful Romantic Gardens on Wednesday, August 18, from 6 to 9 p.m. for a romantic Sunset Garden Stroll and see how it's grown since the dedication one year ago. Member tickets are \$5 for adults and \$3 for seniors and youth.

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Quill and Trowel honors

Gary Davis, Greenhouse Supervisor, has been honored with an Award of Excellence by the Garden Writers Association of America in their annual Quill & Trowel Awards competition. His photographic submission was one of six winning entries selected from the 364 submissions. Fifteen of his photos of bromeliads from the DBG greenhouse were published in the June 1998 issue of Country Living Gardener magazine.

DU Arboretum gains official status

The University of Denver was recently recognized as one of 60 university arboreta nationwide and only the second in Colorado when it dedicated the Chester M. Alter Arboretum. The community is encouraged to take a walking tour of the University Park campus to observe the 200 species of trees and shrubs and approximately 400 individual trees. All trees and shrubs were labeled in order to receive official certification from the American Association of Botanical Gardens and Arboreta. The specimens range from exotic ginkgo to everyday elms. Moras Shubert, PhD, a biology professor emeritus and key organizing force behind the arboretum effort, is also a Life Trustee of Denver Botanic Gardens. Dr. Shubert is currently writing a walking-tour guide which should be available next spring.

Wonderful water lilies



Claude Monet (1840-1926), is known around the world as a great artist, but he also gained recognition as an exceptional gardener. Among the many kinds of plants he grew in his garden at Giverny, France were the water lilies that would provide the motif for many of his later paintings. As he searched for water lilies to display in his one-acre pond, he discovered the nursery of Joseph Bory Latour-Marliac (1831-1911) at Le Temple-sur-Lot, France. Marliac earned as high a reputation as a nurseryman as Monet did as an artist. Denver Botanic Gardens' renowned collection of water lilies includes many of the Marliac hybrids and it is with great excitement that we showcase them as a main component of The Monet Garden: A Living Canvas.

With an air of mystery, Marliac created a multitude of outstanding hardy water lilies. As a nurseryman, Marliac was very secretive of his methods and of the parentage of his hybrids that display a variety of shape and form in white and shades of yellow, pink and red. Exhibiting unusual hybrid vigor and multitudes of colorful blooms, the



Marliac water lilies have stood the test of time and continue to be popular today. They are displayed in water gardens throughout the world and are prized for their excellence.

The enthusiasm and dedication of Ray Davies, an internationally known authority on aquatic plants, and the cooperation of the International Water Lily Society have resulted in the registration of the Marliac water lilies in accordance with the International Registration Authority. The water lilies are thus botanically illustrated, described and officially named.

Denver Botanic Gardens' collection has evolved over the past twenty years and includes many of these exceptional hybrids. With the capable assistance of the Colorado Water Garden Society, the plants are removed from tanks between the greenhouses, where they are overwintered, and displayed in the Gardens' pools each summer. On request, the water lilies are shared with other botanical gardens and public display gardens. Through the use of herbarium specimens, a library of water lilies is being created in the Kathryn Kalmbach Herbarium at DBG.

Several noteworthy Marliac hybrids include *Nymphaea* 'Arc-en-Ciel', with sparkling white flowers and exotic, multicolored leaves and, *N.* x *laydekeri* 'Lilacea', a beautiful rose-pink. *N.* 'Colossea' has large white flowers with a delicate tinge of pink. This summer, the lily pool with the arched, Japanese style bridge, an abundance of classic Marliac water lilies in combination with other aquatic plants, recaptures the excitement and magic of Giverny, Monet and Marliac.

Joseph Tomocik, Curator, Aquatic Collections

Above: Nymphaea x laydekerí *'Lilacea'* Left: Nymphaea *'Collosea'* Photo Credit: Joseph Tomocik

Don't fall behind

Now's the time to plan ahead for your spring garden at the first-ever Fall Plant Sale, September 17 and 18. In addition to trees, shrubs, grasses, orchids and houseplants, the sale will feature divisions of the magnificent iris, peonies and perennials from the Gardens' display beds.

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Ancient agriculture



A stroll in the Pre-Columbian Garden is a walk through North American agricultural history.

From the top terrace of the Inca Garden, I can almost imagine myself an Andean farmer. It is on these days that I realize I have one of the best jobs in the world. As a gardener today, in the Pre-Columbian Gardens, reaching back into the past to discover these ancient peoples and employ their farming techniques, I am surrounded by the plant history of these cultures and the importance of their contributions to the horticulture of our modern world. The Pre-Columbian Gardens include several garden areas that interpret the agricultural and horticultur-

al stories of the Inca, Maya and Aztec cultures.

The Inca Garden, a hillside terrace, represents the terraced terrain of growing fields in the Peruvian Andes. Potatoes, corn, chiles, sunflowers, amaranth and quinoa (an important grain crop), and quillquina (a strong-smelling medicinal herb) can all be found here.

The Maya Garden contains food crops grown in both the Guatemalan highlands and the Yucatan lowlands. It features such plants as tomatillos, beans, sweet potatoes, avocados, chiles and tomatoes.

The Aztec Garden is perhaps the most recognized component of the Pre-Columbian Gardens. The food crop area contains modern-day Mexican crops such as cilantro, chiles, tomatoes, amaranth, squash, tobacco and corn. It is also home to a vast display of vibrantly colored annuals, including Mexican sunflower, flowering tobacco, dahlias, salvias, petunias, heliotrope and marigolds. A metal sculpture of Huitzilopochtli, an Aztec tribal god, interprets the legend of the settlement of the Aztecs in the Valley of Mexico. The sight of an eagle with a snake in its mouth, perched on a prickly pear cactus, was foretold by Huitzilopochtli as a signal to the end of the Aztec's migration south from their homeland. This sign appeared in Lake Texcoco; the Aztecs settled there and built the city, Tenochtitlan ("Place of the Prickly Pear Cactus Fruit"), on the site known today as present-day Mexico City.

The Aztec, Maya and Inca peoples are recognized for having successful and important civilizations in Mesoamerica and South America before the sixteenth-century Spanish conquest. They are responsible for a great deal of our agricultural heritage.

Vanessa Tatsch, Horticulturist



Amaranth in the Pre-Columbian Gardens

Plant Portrait

Amaranthus hypochondriacus

Amaranth, an annual herb, is one of the showiest plants in the Pre-Columbian Gardens. In pre-columbian history it was one of the basic food crops of the New World. In its eight-thousand-year history, Amaranth has provided man with a high-protein flour, a vibrant red dye and leafy greens. The ground seeds of Amaranth have also been used as a ceremonial food for various cultures in Asia and Africa, as well as the Americas. The striking foliage and flowers have wonderful ornamental value.

As agriculture became commercialized, Amaranth ceased being utilized as a food plant. After hundreds of years of obscurity, the plant is once again gaining prominence for those qualities that made it so valuable to generations of our ancestors.

August

August 7 and 8, Daylily Sale

The Mile High Daylily Society Sale will feature several hundred varieties of daylily plants. Most plants will be priced at \$5 and all colors will be available. The hours of the sale are Saturday, August 7, 9 a.m. to 4 p.m., and Sunday, August 8, 9 a.m. to 1 p.m. and admission is included with gate fee. For information, call Jim Schneider at 303-790-4045.

August 21 and 22, Koi Club Show

More than two hundred different fish will be shown at this year's annual Rocky Mountain Koi Club Show. The club will have 15 fish tanks set up for viewing across from the Lily Pond. Judging will take place at 10 a.m. on Saturday; the sale will then be open to the public from noon to 5 p.m. and Sunday from 9 a.m. to 3 p.m. Admission is included with the general gate fee. For information, call Jean Watenpaugh, 303-730-0044.

August 22, Colorado Mushroom Fair

Fresh mushrooms in amazing shapes, sizes and colors can be viewed at the Colorado Mycological Society's 23rd annual Mushroom Fair. More than 1,000 mushrooms are expected. Visitors can also bring in specimens for identification. The fair will be open from 11 a.m. to 5 p.m. on Sunday in Mitchell Hall. Admission is included with the Gardens' entrance fee. For details, call 303-320-6569.

August 29, Denver Rose Society Show

"A Century of Roses" is the theme of this year's annual Rose Society Show featuring favorite roses from past decades. Artistically created arrangements will highlight various historical periods. Entries will be accepted 7:30 to 10 a.m., and judging begins at 10:30 a.m. The show is open to the public from 12:30 to 5 p.m. in Mitchell Hall, and is included with the general gate fee. For information, call Pat Allen 303-271-9574.

August 31 - Sept. 6, Art Show and Sale

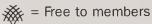
The Allied Arts Guild show will feature pottery, jewelry and watercolor, oil, acrylic and ink paintings from more than thirty artists. Pieces will be available for purchase. The show will be held in Mitchell Hall starting at noon on August 31, and open until September 6 during regular Gardens' hours. Admission is included with gate fee. For information, call Dick Lutz at 303-758-5870.

KEY FOR CALENDAR

Bold gold type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

Regular black type = Classes (CH) = Classes at Chatfield Arboretum



ris events 303.370.818

Plant Society events open to the public. **Call 303.370.8097 for information.**

SUNDAY

1

8

Stained Glass Show Painting in the Monet's Garden*

1-8 Glass at the Gardens 💥

Artist in Residence Program*

2

Free Day at York Street 2-6 Deer Creek Discovery Camp

Field Sketching at the Foot of Mount Evans*

MONDAY



3

Sunrise Fitness Walk

TUESDAY

Bonsai Society meeting Making and Using Flower I

Mount Goliath Wildflower

10

Mile High Daylily Society Sale

9

Park Mushroom Hunt Water Garden Society meeting Japanese Tea Ceremony*

8-19 Rocky Mountain National 🔉

Sunrise Fitness Walk **Cactus Society meeting** Mount Goliath Wildflower Flower Arranging a la Mon

Artist in Residence Program*

15

What's the Buzz?* Monet, Marliac, Water Lilies and You* Sunday Morning Wildflower Walk* Artist in Residence Program*

16

Impressionistic Photography*

17

Sunrise Fitness Walk **Bonsai Society meeting**

22

Koi Show 🐺 Colorado Mycological Society 🔆 **Mushroom Fair**

Japanese Tea Ceremony* Artist in Residence Program* 23

Mycological Society meeting Monet, Marliac, Water Lilies and You* 24

Sunrise Fitness Walk *

29

Denver Rose Society Rose Show

Monet, Marliac, Water Lilies and You* Artist in Residence Program*

30

31

Sunrise Fitness Walk 31-9/6 Denver Allied A Show and Sale 💥



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4

es*

Senior Early Morning Stroll **
members only

5

Aromatherapy: Part IV*
Mount Goliath Wildflower Tour*
Capturing the Light: Advanced Field
Sketching in the Monet Garden*

6

Summer Concert Series: Vinicius Cantuaria Free Day & 11 a.m. Tour



Scientific & Cultural Facilities District

7

Mt. Goliath Volunteer Day
Mile High Daylily Society Sale

Gloxinia Gesneriad Growers mtg.

Pamper Yourself Part I: Making Herbal
Bath Oils, Salts, Sachets & Lotions*
Monoprint a Monet Print* (5-7 yr-olds)
Monoprint a Monet Print* (8-10 yr-olds)
Crepes for Kids*
Bouquet Monet*
Japanese Tea Ceremony*

11

Members Picnic members only

12

Summer Concert Series: Keb' Mo' Rose Society meeting Aromatherapy: Part V* (CH)

Mount Goliath Wildflower Tour*

13

Summer Concert Series: Keb' Mo'

14

Rocky Mountain Orchid Judging Center

Getting Savvy with Salves*
Painterly Photography in the
Monet Garden*
Photo "Painting"*
Not So Silent T's* (5 to 7 yr-olds)
Not So Silent T's* (8 to 10 yr-olds)

18

Sunset Garden Stroll —

a Romantic Evening in the Gardens

North American Rock
Garden Society meeting
Herb Society of America meeting



19

Soapmaking* (CH)
Picnique in the Garden*

20

Summer Concert Series: Willie and Lobo

21

Koi Show 🎇

Herbal Garden Party* Photographic Lighting* Japanese Tea Ceremony*

25

Gardens Closed

26

Gardens Closed Fête des Fleurs

African Violet Society meeting Candlemaking* (CH)

27

Summer Concert Series: Leon Redbone 28

Bonsai Society meeting
28-29 DRG Travel Adventure:

28-29 DBG Travel Adventure:
Rocky Mountain Mushroom Hunt
Herhal Harvest*

Herbal Harvest*
Landscape Ornamentation:
Whimsical to Wonderful*







COME DINE WITH THE ANTS — AND ALL THE OTHER BIG BUGS!











MEMBERS' ANNUAL PICNIC

A CREEPY CRAWLY JAMBOREE WEDNESDAY, AUGUST 11, 6-8:30 P.M.

- A celebration for members only with music by Barrel-O-Monkeys
- Family games, activities & Face Painting
- Hot dogs, chips and juice included in admission
- Concessions for sale from Three Tomatoes Catering

\$7 Adults, \$5 Children (6-15) AND FREE FOR CHILDREN 5 & YOUNGER.

Reservations are required and must be received by August 6. Send your check or credit card information to: Denver Botanic Gardens Members' Picnic, 909 York Street, Denver, CO 80206. Tickets will be sent. Call 303-370-8021 with questions.











Member perks

Please be sure to take advantage of the many free member activities offered by the Gardens. All activities that are free to members are marked in the newsletter's monthly calendar. August features the Mushroom Fair, Denver Rose Society Show, Koi Club Show, Daylily Sale and the Allied Arts Guild Show and Sale. All this, the big Bugs sculptures and a living replication of Monet's Garden (with water lilies at their peak in August), are free to members.

Yearly plant dividends

This year's Plant Dividend Days will be held in conjunction with our first-ever Fall Plant Sale on September 17 and 18. For each membership held, members can select one free indoor or outdoor plant from the dividend selections which have been grown here at the Gardens or raised by cooperating Green Industry Growers.



DBG TRAVEL ADVENTURES

Southern California Explorer

Santa Barbara, Pasadena, Los Angeles and San Simeon October 5 to 10, 1999

Join other Denver Botanic Gardens' members on this fall tour of Southern California. We will visit renowned museums and gardens such as the Getty, Huntington and Lotusland. A variety of exquisite private and public gardens will allow us to see the spectacular flora of the area. Historical tours as well as special receptions and dinners are planned. And, no trip to this area would be complete without an excursion to San Simeon for a

tour of the Hearst castle. Please call Travel Coordinator Pam Rathke at 303-370-8051 with any questions.

The price is \$1395 per person and includes: lodging, ground transportation, most meals, activities, entry fees and guiding services.

The trip is rated "easy." Walking tours of short duration and distance can be expected.



Four reasons to plan...now

The Gardens is always encouraged to learn that Denver Botanic Gardens has been remembered in a will or other estate planning arrangement. Even knowing that a person intends to include the Gardens is uplifting.

Whether your will includes the Gardens or not, we want you to know that there are income and tax benefits available for other types of gifts such as charitable remainder trusts or the Gardens' charitable gift annuity. You may want to accelerate your bequest and give all or part of it now for such a gift. Or, you may just want to make a separate gift.

- **1. Create income...now** An important benefit of charitable remainder trusts or gift annuities is the ability to make a gift today and know you can count on income from that gift for the rest of your life (and/or another if you choose). Gift annuities in particular can provide attractive rates if you are over 65. Gift annuities and charitable remainder trusts present excellent opportunities to preserve the gift you planned for DBG and create current benefits for you.
- **2. Reduce taxes...now** The IRS allows a portion of your charitable remainder trust or gift annuity to be eligible for a charitable income tax deduction. You may find that switching your bequest into a charitable remainder trust or gift annuity now is a taxwise idea worth considering.
- **3. Stabilize retirement...now** Creating a life-income gift now allows you to plan for future circumstances. Depending on your preferences, you can select a charitable remainder trust and arrange to receive a fixed or variable income for the future.
- **4. Enjoy giving...now** When you complete such a gift, you can feel a very special satisfaction knowing you have made a unique gift to Denver Botanic Gardens and a difference in our future. And, we can enjoy saying thank you and including you in a special group of our friends, the Perennial Friends, who have made similar gifts.

Please call Jennifer Darling at 303-370-8027 for information on charitable remainder trusts and gift annuities.



Monet in the Moonlight

Denver Botanic Gardens' Committee of the Fête des Fleurs requests the pleasure of your company on Thursday, the twenty-sixth of August Nineteen hundred and ninety-nine at half past six o'clock

Join us for dinner and dancing and enjoy the Monet Garden: A Living Canvas

Black tie 1005 York Street — Valet Larking, 9th and York The favour of a reply is requested by August 18, 1999 Llease call Tiffany Jones at 303-370-8055 for ticket information.



The Garden Plot

From the DBG Library

The original red dye #1

While planting some prickly pear (Opuntia sp.) in my yard, I started pondering different possible uses for the plant. One use is cochineal, a vibrant red dye made from the scale insects living on the cactus. My mother is a weaver so naturally I was hoping I could produce some red dve for her.

To create cochineal dye you first have to have a scale infestation on the pads of the prickly pear plants. In Mexico, Peru, and Bolivia, where there is commercial production of cochineal, small bags of the scale are collected from prickly pear plants with large infestations and attached to uninfested prickly pear pads. Then the insect has to grow to maturity to be worth harvesting, which takes



about eight months. During that time it lives off the plant like any other scale insect. Females that have matured to the egg-laying stage are harvested. When harvesting, great care must be taken not to break the insects because broken scale insects are unusable. A collector uses soft brushes made of local plant material to gently dislodge the insects. A harvest can be decimated by the rainy season because the tropical rains knock the insects off the plants. After harvesting, the insects are dried in the sun and killed. Killing them does not improve the quality of the dye, but does make the insects heavier, and since they are sold by the pound, more profitable. The dye is a powder of crushed dead insects.

The red dye was highly prized in both Aztec and Incan cultures. Although there are no prickly pears in the Pre-Columbian garden, there are many throughout the rest of the Gardens. On your next tour look for the insect that created this dye.

Sources from the Helen Fowler Library used for this article:

Adrosko, Rita J. Natural Dyes and Home Dyeing. New York: Dover Publications,

1971. TP 919 A37 1971

Agro-Ecology, Cultivation and Uses of Cactus Pear. Rome: Food and Agriculture Organization of the United Nations, 1995. SB 379 .P8 A37 1995

Towle, Margaret A. The Ethnobotany of Pre-Columbian Peru. Chicago: Aldine Publishing, 1961. SB 108 P4 T6 1962.

Free field trips

All school groups in the six-county SCFD area can take field trips to the Gardens free of charge. Educational programs, including guided theme tours and teacher-led discovery backpacks, are also free. Call the registration office at 303-370-8020 to reserve a time for your class to experience the wonders of plants this fall.



Photograph landscapes with John Fielder

Join acclaimed Colorado nature photographer and teacher John Fielder for a weekend of photography instruction and beautiful scenery at Denver Botanic Gardens at a location along the South Platte River. The program begins with a lecture on Saturday, September 4 from 9 a.m. to noon. This lecture is open to all who are interested in the how-to's of color landscape photography. The program continues Saturday afternoon and Sunday morning with an intensive hands-on workshop that is limited to 16 participants.

Fielder's unique photography curriculum is derived from his new book Photographing the Landscape: The Art of. Seeing, a landmark volume derived from his more than twenty years photographing Colorado and the West. The slide lecture is followed by Saturday evening and Sunday morning field sessions. On Sunday, Fielder will critique film from Saturday's shoot which will be processed overnight.

This workshop is intended for all levels of photographer, from beginner to pro, 35mm to large format. Fielder's teaching style is friendly and understandable, and his novel curriculum will stimulate you to reconsider most of what you thought you already knew.

Cost for the slide lecture alone is \$40 for members and \$50 for nonmembers. Cost for the entire weekend program, both lecture and workshop is \$295 members and \$350 nonmembers, and is limited to 16 participants. Contact the Education office at 303-370-8020 to register.



From left to right: Jenevieve Thompson, Amy Robinson, Marsha Paulich, Leslie Black Elk, Cathleen Corless, Anna Campbell and Nicole Nahay.

Intern excitement

Every summer, the Gardens becomes a training ground for young people passionate about plants and curious about different career paths. The Education department proudly directs intern groups and their help has been invaluable this summer.

Summer college internships

Six college students arrived at the Gardens in mid-June for a summer of educational enrichment and hands-on training as interns in applied horticulture. They've been learning through lectures, field trips and special projects in addition to working alongside DBG's professional staff. This successful program is partially underwritten by gifts from Denver Botanic Gardens Guild, Associates of Denver Botanic Gardens and other organizations and individuals.

Anna Campbell and Jenevieve Thompson are training under two Alice Mann Owen Internships. Campbell studies at Smith College. She has worked on several different farms, with a botanist at the US Forest Service, at her family's vineyard and winery, a macadamia nut orchard, commercial vegetable farm, native tree nursery and even a pig nursery. Thompson is just completing her degree in ornamental horticulture from Utah State University. She has a strong interest in public education, especially concerning the issues of water conservation and appropriate plants for regional landscapes.

Cathleen Corless' and Amy Robinson's learning experiences at the Gardens are supported by the two Beatrice B. Taplin Internships in applied horticulture. Corless just received her horticulture degree from the University of Georgia. She has worked in all stages of plant production, from starting seeds to maintaining the landscape. Robinson is pursuing a degree in public horticulture at Purdue University. Because her parents

own a retail nursery, she has been interested in horticulture most of her life. This interest has led her to a job at Oakhurst Gardens and an internship in floral crops in France.

Nicole Nahay, recipient of this year's Clara Van Schaak Phipps Internship, studies horticultural science at North Carolina State University. She is working toward a career as a curator in a botanical garden and aims to incorporate permaculture into the design of a garden learning area.

Marsha Paulich was awarded the Donald McIntosh Internship. She is a biology major at the University of Colorado at Boulder. She is especially interested in the preservation of natural wildlife habitats and of ranching and farming communities.

Youth education interns

This summer's Youth Education Interns sought out DBG as a place where they could put their skills to work and acquire new ones. Working with the education staff, these interns created their own projects to help meet their professional goals while helping the Gardens teach children about plants.

Leilani Fintus hails from the University of Colorado at Denver and has been creating a comprehensive publicity plan for Youth Education to help get the word out about the free programs the Gardens provides to schools.

Joy Kay had such a good time last summer, she is back as a Colorado Alliance for Science intern. She is creating lessons for the Mars Millennium Project which will help students envision a sustainable community of 100 living on Mars.

Amanda Bronesky comes to us from Tufts University. She has been using her background in Spanish to create cultural activities and help with translation of some of our existing programming. She has also been assisting with the development of a youth education portion of the Web site.

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DON'T MISS...



Monet Merchandise

To celebrate the opening of the new Monet Garden at Denver Botanic Gardens, the Gift Shop has a colorful assortment of scarves, prints, books and bags celebrating the Impressionist style made popular by French artist, Claude Monet.

Green Thumb News

www.botanicgardens.org

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

Tues. and Thurs., 1 to 3 p.m.

Plant*talk* (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

Offices

Mon. through Fri., 8 a.m. to 5 p.m.
Address changes 303-370-8060

Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049 **Chatfield Arboretum** 303-973-3705

Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: N. 'Lucida', Denver Botanic Gardens.

First-Time Ever! Fall Plant Sale Denver Botanic Gardens Cover Story on page 3



From the Top

News from the Executive Director



Dave Rogers' Big Bugs was a visitor favorite which will be missed when the exhibit closes on September 19.

As a newcomer to Denver, the last spring was a real eye opener for me. What amazed me most was the speed with which the region progressed from winter to summer with barely a pause for spring. One day it was cool and wet with very little in flower and just a few days later, the gardens were filled with flowers and visitors were seeking shade from a relentless sun as they marveled at riots of color. As activity increased, seasonal staff, interns and volunteers joined our team to help with the day-to-day garden maintenance as well as the installation of major projects.

Visitors enjoyed the opening of the magical new Monet Garden. I witnessed the intense activity of installing arches and supports for vines; laying sod; putting large numbers of plants in the ground and completing

the Japanese bridge which, for most people, is the hallmark that says, "This is the Monet Garden." Elsewhere in the garden, Dave Rogers' Big Bugs became so familiar and such a firm favorite among visitors that they will be sorely missed when they are gone.

At Chatfield we completed six fully-booked Deer Creek Discovery Camps for children (sponsored by the W.M.B. Berger Foundation). This, for many of those kids, was their first experience of life in the country and activities varied from studying wildlife in the wetlands to feeding the chickens. Almost everything was hands-on and I spent a very happy hour observing the delight and enthusiasm of the kids as they absorbed new experiences.

On Mount Goliath barely a week separated snow patches and brown vegetation from the profusion of flowers which were everywhere. The last weekend of June was my first-ever encounter with the alpine forget-me-not, Eritrichium aretioides, which lived up to its reputation as a gem of the rocky alpine slopes.

For me it all happens too fast and I barely get to catch my breath before something else has begun to flower or there is something else to see. It's very, very exciting and a wonderful benefit of living in Colorado.

Brinsley Burbidge, Executive Director



Employee

of the Month

Congratulations to Julie Behrens, August's Employee of the Month. As Communications Specialist, Julie has given DBG's publications an attractive new look. Thanks to her creative public relations, the Big Bugs exhibit was a big success. Julie's warm smile and sense of humor make her a pleasure to work with.

7777 Plant Puzzler

Q. The yellow flower of what summerblooming plant is prized in Chinese cuisine? This month's puzzler is provided by David DeRose, DBG Horticulturist

treated with pesticides or herbicides. Use only those plants you are certain have not been and the roots may be used as a starch. Caution: ble petals are sprinkled on salads and vegetables faste and are delicious pickled or stir fried. The edi-A. The buds of daylilles have a fresh, asparagus-like



The Wild Side

News from Chatfield

The 1999 Pumpkin Festival will be held on Saturday, October 9 from 9 a.m. to 5 p.m. The four-acre pumpkin patch promises to produce a grand harvest for the big day.

Numerous craft and food vendors will be present to inspire early holiday shoppers and please everyone's taste buds. Free hayrack rides will transport visitors to the festival area and all children in costume will be admitted free.

New to the festival this year will be an accessible hayrack ride and pumpkin picking area for our visitors with special needs. All hayrides will be provided by Front Range Antique Power Association and KOOL 105 radio will fill the air with tunes.

Don't miss out on the fun. For more information, please call 303-973-3705.

Bonfils-Stanton Lecture

Rejoice with flowers!

The Bonfils-Stanton lectures resume Wednesday, September 23 with floral

designer Pauline
Runkle demonstrating dramatic
flower arrangements. "Rejoicing
with Flowers: A
Creative Experience"
combines a lecture and
flower arranging demonstration to encourage participants to find the artist
within themselves.

All too often, gardeners are afraid to make flower arrangements. Well, now you can learn how easy it is! Runkle has been featured in numerous magazine articles. Her arrangements have also graced the stage for all national telecasts of the Boston Pops Orchestra, the sets of PBS's "Masterpiece Theater" and the windows of Boston's Tiffany and Co. She has lectured at the Cloister Garden Series at Sea Island, Ga. and AmeriFlora '92 in Columbus, Ohio. Her unique French Umbrella necklace and special floral clippers will be available for sale in the Gardens Gift Shop.

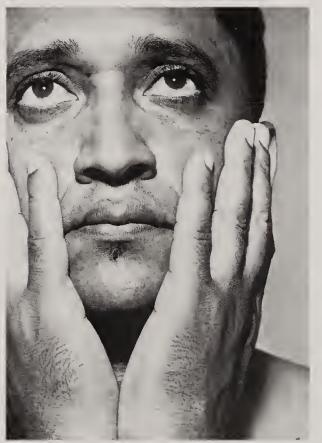
The Bonfils-Stanton Lecture Series is named in honor of the Bonfils-Stanton Foundation whose generous support makes it possible to bring renowned speakers to the Gardens. Lectures, held in DBG's Mitchell Hall, begin promptly at 10 a.m. and 7 p.m. and are \$8 for members and \$12 for nonmembers. Please call 303-370-8020 to purchase tickets or for more information.



Cover Story: The first-ever Fall Plant Sale!

Now is the time to take advantage of the season to plan and plant for next-year's garden. For the first time, Denver Botanic Gardens will hold a Fall Plant Sale on September 17 and 18. Horticulturists have divided plants from the Gardens' spectacular iris and peony collections and they will be available for purchase. Forty different kinds of plants from Tropical Botanica have been propagated for the sale. There will also be a wide selection of trees, shrubs and perennials that benefit from being planted in the fall.

In addition, Plant Dividend Days, held on both days of the Fall Plant Sale, will allow members to select a plant of their choice from a selection of more than 500 plants. Please see page 8 for more details on Plant Dividend Days and the centerfold insert for more information regarding the sale.



The Summer Concert Series ends its 19th season with the melodic Brazilian beats and African harmonies of Waldemar Bastos on September 3.

Fellowships and grants

The Garden Club of America (GCA) is a nonprofit, national organization dedicated to horticulture, conservation and civic improvement. The club strives to stimulate the knowledge and love of gardening. The interdependence of all living things is the foundation of the organization's conservation and education programs and the GCA sponsors numerous scholarship programs for college level and graduate study. Information can be obtained through the Internet at http://www.gcamerica.org. For more information, view their web site or call 212-753-8287.

Horticultural heirlooms



The tradition of heirloom plants began with the earliest agricultural humans. Our ancestors saved seeds and divisions of plants that they found especially productive, useful, tasty, healing or visually appealing. As seeds and divisions passed from one gardener to another, the plants adapted to their new environments in ways that made them distinctive. The past 100 years has seen a frightening decline in these treasures. They have nearly been replaced by mass produced and distributed hybrids, products of the agricultural revolution of this century.

Over the past 20 years, a grass roots movement to save this botanical resource has grown throughout the world. Heirloom plants can be defined as species or cultivars that have been grown for more than 50 years. At Denver Botanic Gardens, heirloom plants may be observed in various gardens.

The Heirloom Vegetable Garden features purely heirloom vegetables. The seeds come from seed-saving organizations throughout the world. The small size of the garden prohibits saving quan-

tities of seed successfully, so new stock is ordered each year.

The Pre-Columbian Gardens are a tribute to the food crops and flowers of the Americas. The Aztec, Inca, Maya and Southwest Native Peoples gardens are home to a wide variety of heirloom beans, corn, squash and chiles. These ancient cultures have been ardent seed savers and their efforts provide the world with a significant genetic resource.

The Herb Garden is a collection of European plants with medicinal, culinary and other useful properties. It is an interesting comparison with the Pre-Columbian Garden, since the uses of plants in both areas date back thousands of years.

Peonies are treasured for their ease of growth and longevity in the garden. Of the 200 plus cultivars of peonies found in the Peony Garden, more than 20 are heir-loom plants that have become quite scarce in the commercial trade. Divisions of some of these varieties will be available at the first-ever Fall Plant Sale.

Daylilies have a long tradition and are widely used as ornamental plants. Anna

Condit of the Mile High Daylily Society has carefully researched the daylilies in the display garden at Denver Botanic Gardens. Her mission has been to ensure that the Gardens displays those plants best suited to the region. Her studies have lead to a collection of species and hybrids of *Hemerocallis* that includes many of the "oldies but goodies."

As libraries treasure their well-worn and often read volumes, we value those plants in our collections that remind us of times past and the legacy of our horticultural heirlooms. These historical treasures are some of the best plants to carry us into the next century.



Above left: Common rue (Ruta graveolens) has a long history of medicinal use and is found in the Herb Garden. Above: Lamb's ear (Stachys byzantina) have added their irresistible texture to gardens for centuries.

Heirloom peonies available at the Fall Plant Sale

Paeonia 'Chief Justice' (1941)

Paeonia 'Mahogany' (1937)

Paeonia 'Montezuma' (1943)

Paeonia 'Nick Shaylor' (1931)

Paeonia 'Red Charm' (1944)

Paeonia 'Sea Shell' (1937)

Joann Narverud, Grounds Supervisor

Fall planting equals spring color



The buttery yellow flowers of Tulipa batalinii 'Bright Gem' will multiply every year.

Everything about the planting and maintenance of springblooming bulbs is different from other gardening tasks. Bulbs must be planted in the fall, often into the loose soils of beds which have been lovingly worked throughout the summer. As the bulbs are planted, gardeners are left with little visual reward for their endeavor. However, unlike the perennials whose presence will gradually diminish through the winter months, the invisible underground bulbs tug at our hearts all winter with anticipation for the surprise that awaits: colorful jewels which announce the beginning of another gardening season.

What a gentle beginning bulbs offer the gardener, for they require little maintenance. Aside from careful siting for cultural preference, an occasional drink if the winter is dry and tolerance for their "ripening" or yellowing foliage (easily masked by the foliage of emerging perennials), most bulbs will continue to appear, year after year, without any additional fuss.

The following bulbs are highly recommended for their visual appeal and ease of growing. They also represent a selection of the lesser known bulbs and will be available at the first-ever Fall Plant Sale, along with an extensive assortment of crocus, tulips and daffodils. Many "hard-to-find" varieties will be included and all will include a photographic description and exact planting depth. The beauty of bulbs is apparent in spring, however, the key to realizing that beauty is to plant in the fall.

- Ornamental onions (*Allium* spp.) with their eye-catching spheres of flowers may be planted into perennial, annual or cutting gardens as well as vegetable gardens. The flowers and interesting seed heads that follow the bloom are both appealing.
- Windflower (*Anemone* spp.) features early spring flowers. Two of the most popular at Denver Botanic Gardens have been: *Anemone coronaria* 'DeCaen' (Poppy-flowered Anemone) *Anemone blanda* 'Blue Star', 'Pink Star' and 'White Star'—useful under deciduous trees or in other partly shaded areas.
- Glory-of-the-snow (*Chionodoxa luciliae*) bloom early and will do best if planted in full sun. *Chionodoxa* 'Gigantea', 'Pink Giant' clusters of blue or pink flowers, beautiful companions to low-growing junipers.
- Checkered lily (*Fritillaria meleagris*) features downward facing tulip-shaped flowers with checkered patterns of dark red and cream. Good in a woodland planting.
- *Iris reticulata* is one of the first flowers to emerge from the wintery landscape in February. The deep, jewel-tone flowers often appear through snow. *Iris reticulata* will thrive in full sun and well drained soil.
- Tulips (*Tulipa* spp.) are available in a wide variety beyond the typical hybrids that flower later in the spring. Colorful flowers appear from early spring on, often sporting interesting variegated foliage. These tulips naturalize and multiply easily and are best grown in full sun and well-drained soils.

Julie Loquidis, Horticulturist



Allium aflatunense, one of the many ornamental onions found throughout the gardens, flowers in early spring.

September

September 11, 12, Gloxinia Gesneriad Sale

If you are looking for extremely colorful flowers, the Gloxinia Gesneriad Sale is the place to be. The Gloxinia Gesneriad Growers are expecting this year's crop of flowers to be the biggest and most beautiful ever. This show and sale will be held in Mitchell Hall on Saturday, from 1:30 until 4:30 p.m. and Sunday from 10 a.m. until 4:30 p.m. For more information, please call Jean Miller at 303-421-3195.

September 17, 18, Fall Plant Sale

This year, for the first time, Denver Botanic Gardens will host a Fall Plant Sale on September 17 and 18. This event will feature items that are best planted during the autumn months, including peonies, daylilies, iris, chrysanthemums, perennials, orchids, bromeliads, gesneriads, cacti and succulents, spring bulbs, own-root roses, ornamental and native grasses, trees, shrubs and garden-grown stock. Admission is free. The sale runs from 10 a.m. to 5 p.m. on both Friday and Saturday. For more information, call 303-370-8187.

September 17, 18, Plant Dividend Days

Plant Dividend Days, held on both days of the Fall Plant Sale, will allow members to select a free plant from more than 500 plants. Please see page 8 for more details on Plant Dividend Days.

September 26, Waxman University **Photography Workshop**

What better place to learn close-up flower photography than Denver Botanic Gardens! Robert Waxman University is offering a free class at the Gardens on how to improve your skills. Bring your camera and practice shooting after class, from 3 to 4:30 p.m. Class will be held in Mitchell Hall. For more information, call 303-370-8187.

Keepsakes no more?

Antique keepsakes, including silver, crystal, linens and lace, jewelry and antique garden ornamentation, are being accepted to sell during the Gardens' Holiday Market in November. Proceeds will benefit the Gardens. Members of the Keepsakes Committee will gratefully accept donations at the Volunteer Office on Mondays from 1 to 3 p.m. For more information, please contact 303-370-8049 or 303-278-7566.

KEY FOR CALENDAR

Bold pink type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

Regular black type = Classes (CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION:

Gardens events 303.370.8187

Plant Society events open to the public. **Call 303.370.8097 for information.**



John Fielder's Photographing the Landscape: The Art of Seeing* Fall Photography Lecture & Workshop



6

Free Day at York Street



Bonsai Society meeting



12

Gloxinia Gesneriad Growers 💥 **Show and Sale**

Colorado Water Garden **Society meeting** American Begonia Society meeting

Japanese Tea Ceremony* Walking, Talking & Eating: A Tasty Tour of DBG's Community Gardens* 13

Mycological Society meeting

14

Cactus Society meeting All Natural Face Care*

19

Sunday Morning Wildflower Walk* Dave Rogers' Big Bug Walk and Talk* 20

21

Bonsai Society meeting Hunting the Wild Mushroor

26

Waxman University Photography Workshop

Gourdegous Masks* Getting Savvy with Salves* 27

Ultra Violet Club meeting

The Seven Principles of Water-Smart Gardening* The Perennial Border* Fall Flower Arranging* Miniature Railroad Garden* 28

Colorado Native Plant S

The Water-Wise Flower Gar. Tropical Forest Theme Tour Guide Training*



Denver Botanic Gardens



Fall Plant Sale

Denver Botanic Gardens Fall Plant Sale

Sale on Friday evening and all day Saturday, September 17th and 18th. For the first time ever, Denver Botanic Gardens is holding a Fall Plant Don't fall behind. Now is the ideal time to plan for next year's garden while this year's effort is still clear in your mind.



Members shop early

Members will have the first opportunity to shop on Friday evening, September 17th from 5 to 6 p.m. The sale will be open to the public from 6 to 8 p.m. On Saturday, September 18th, members will again have first choice from 9 to 10 a.m. and the public will be admitted from 10 a.m. until closing at 4 p.m.

Shopping list

Many trees and shrubs benefit from being planted during the fall months when they can establish roots before the rigors of the growing season. The Fall Plant Sale will include the following divisions:

Peonies

Daylilies

Chrysanthemums

Admission

the sale is free and members receive a 10% discount on all purchases. New memberships and renewals will be sold at the gate.

Location

The Fall Sale is smaller than the Spring Sale and please note there will be no books for sale at this event. Plant vendors will be concentrated in Mitchell Hall and the Crossroads area near the entrance. Shoppers can enter and exit at the main gate only at 1005 York Street and cashier tables will also be located there.

Parking

Plant valets will be on hand to help load purchases into your car. There will be no bus shuttle service for this event.

Plant Societies

Many plant societies will have booths at the Fall Plant Sale to showcase their specialty plants. Members of these organizations will share their expertise, enthusiasm and answer all questions.

One free plant per member

Members should also remember to select a free plant from their choice of more than 500 plants. Visit the Plant Dividend station located inside the lobby court and show your current membership card to receive one plant per member. Both indoor houseplants and outdoor plants will be available.

Gesneriads Cacti and succulents

Bromeliads

Cacti and succulents Spring bulbs

Shrubs

Ornamental grasses

Houseplants and tropicals

A very special columbine

Ball Horticultural Company has created an exquisite new white and red-violet columbine which they have named "Remembrance" to honor the lives of the teachers and students who were killed or injured in the Columbine High School tragedy. Denver Botanic Gardens will have 5,000 plants of this *Aquilegia* x *hybrida* 'Remembrance' available at the Fall Plant Sale and proceeds will be donated to a Columbine fund.

Shopping Carts

Shopping carts will not be available for this sale. The Gardens encourages shoppers to bring their own wagon or cart.

For more information about the Fall Plant Sale, call 303-370-8091. Denver Botanic Gardens, 1005 York Street, Denver, CO 80206 www.botanicgardens.org





1

2

3

Summer Concert Series: Waldemar Bastos Free Day & 11 a.m. Tour

Chatfield Arboretum

SCFD

4

John Fielder's Photographing the Landscape: The Art of Seeing* Fall Photography Lecture & Workshop

8

9

Rose Society meeting

10

11

Gloxinia Gesneriad Growers

Show and Sale
Rocky Mountain Orchid Judging
Center seminar and judging
Herb Society of America
Conference

15

Herb Society of America meeting Trees & Shrubs for the Front Range* 16

Pass-Along Plants* Kids Soap Making* 17

Fall Plant Sale open to the public
Plant Dividend Days
for members only

18

Fall Plant Sale popen to the public Plant Dividend Days for members only

High Country Judges Workshop Rocky Mountain African Violet Council meeting

Dave Rogers' Big Bug Walk and Talk*
Perennials for Connoisseurs*
Ornamental Grasses*

22

Bonfils-Stanton Lecture

Simple Soaps*
The Art of Essential Oil Blending*
Time for Tomatoes*

23

Gardeners of America meeting

Harvesting and Storing Herbs for Winter Health* Bulbs for Year-Round Color* 24

From the Designer's Eye: How to Critique Your Home Landscape*

25

Bonsai Society Workshop

Fall Fervor — Weathering Winter in Your Garden* Plant Identification Walk*

29

mtg. Tropical Forest Theme Tour
Guide Training*
Garden Structure and Hardscape:
Design, Layout and Detail*

30

Behind-the-Scenes Tour

Arbor Circle level members & above Roasted Chiles and Sassy Salsas*





Membership

Plant Dividend Days



Gazania 'Colorado gold' is just one of the many free plants that will be available to members.

Members who come to the Fall Plant Sale, Friday and Saturday September 17 and 18, will be able to take home a free plant from a selection of more than 500 plants. Some of the plants, which were started from cuttings from Tropical Botanica and the greenhouses, include *Iresine herbstii* (beefsteak plant), *Pityrogranna calomelanos* v. calomelanos (silver fern), *Hemigraphois alternata* (red flame ivy), *Barteria rosea* and other choice plants. Also available will be some exciting special contributions for indoor and outdoor use from the Gardens' Green Industry partners. Just a few of the many perennials available will be *Thalictrum aquilegifolium* (meadow rue), *Aster* x *frikartii*, *Prerovskia* (Russian sage) and *Gazania linearis* "Colorado gold."

Please visit the Plant Dividend station located inside in the lobby court area near Tropical Botanica. You will need to show your current membership card to receive a plant (only one plant per membership, please). Selections will be available on a first come, first served basis. An equal number of each plant variety will be available both days.

The final Behind-the-Scenes Tour of 1999

On Thursday, September 30, the Gardens will host the last Behind-the-Scenes Tour for 1999. This tour is open to Arbor Circle Members and higher and will enable access to the Gardens' greenhouses which are generally off limits to the public. Tours will start at 5:30 and 6:30 p.m. There will be light refreshments available as well. Invitations have been mailed. Please call 303-370-8021 for reservations and information.

Remember to take the Gardens with you when you move!

If you are planning a future move, please contact the Gardens Membership Office at 303-370-8060 as soon as possible with notification of your new address. This will allow you to stay in touch with the Gardens without missing an issue of the newsletter!



A July weekend of wildflowers

Denver Botanic Gardens members thoroughly enjoyed their weekend in the mountains near Breckenridge with Rock/Alpine Horticulturist Panayoti Kelaidis and his wife Gwen (also a well-known botanist). Highlights included a wonderful concert, barbecue dinner and plenty of hiking through incredible fields of wildflowers.

The Travel Brochure for next year's trips will be included in the next issue of *Green Thumb News*. Trip destinations for 2000 include South Carolina, Hawaii, France, Winter Park for wildflowers, Canadian Rockies, China, and in early 2001, New Zealand! Call Pam Rathke, Denver Botanic Gardens' Travel Coordinator at 303-370-8051 for more information.

Benjamin Franklin...on Money & Trust

"Put not your trust in money; put your money in trust." Benjamin Franklin had the right idea — at least for many people. Some of those people are friends of Denver Botanic Gardens who, following Ben's wise words, have funded charitable remainder trusts to produce financial benefits during their lifetimes and create generous gifts for the Gardens.

With the establishment of a charitable remainder unitrust, an entire property can be placed in a trust. Since a charitable remainder trust qualifies as a charitable gift, the trust can sell the property without incurring capital gains tax. That allows the trust to invest the full amount of the sale proceeds (less incidental and closing costs) in a portfolio of stocks and/or bonds with a payout rate, sufficient to meet annual income needs plus provide added appreciation to keep the trust growing. There will also be an income tax charitable deduction to produce additional tax savings.

Each year in January, the trust is revalued and the donors receive their payout based on the new value. This continues for their lifetimes. At the end of the donor's lifetime, what remains in the trust will be their gift to the Gardens. Should the trust increase in value over time, the donor's legacy could be even more substantial than the original gift amount.

If additional information on charitable remainder trusts would be helpful, especially as you begin to think of year-end tax planning, we are happy to provide information that describes these trusts, gift annuities and other giving plans. And, when you complete such a gift, we look forward to welcoming you to a special group of friends, Perennial Friends, who have made similar gifts. To request your brochure, or if you have any questions, please call Jennifer Darling at 303-370-8027.



More than 2,000 of DBG's corporate donors and employees enjoyed a special "Thank You" evening at the Gardens on July 9. Corporate Evening allows our corporate donors to see and enjoy the results of their support.

Memorials and Tributes

In memory of Johnnie Beth Godfrey Gina G. Godfrey

In memory of Brad Bradford Mrs. C. H. Kelsall

In memory of Lauren Townsend
Priscilla McClintock

In memory of Deane Land Balen Mr. and Mrs. Walter C. Emery

In memory of Jim Greenfield Donna M. Curtis

In memory of Charles M. Lawson Harold and Arleen Summers

In memory of Inga VonHortenau Sally Hodge

In memory of Elizabeth Lance Arlene Lance

In memory of Vernon Retallack Jim and Kitty Rogers

In memory of Marion Siple Kathryn Portus

Betty Botth Debbie Wittke

In memory of Harold Bowes
Marilyn C. Foster

In memory of Diane Wilson Helen F. Wood

In memory of Harry B. Kuessel Jeffrey T. Kuessel

In memory of of Sharon Muhlick Claudia Anisimow

In memory of Alice V. O'Rourke
Susan and Dick Kirk

In honor of Gloria Falkenberg
Mr. and Mrs. Thomas E. Creighton

In honor of Mrs. Thomas E. Taplin Anonymous

Your special place in the Gardens

Show someone your love and appreciation this fall, or treat yourself to an everlasting gift. Denver Botanic Gardens is offering a chance for members and friends to purchase named bricks. Buy a brick paver today and you will have your own special place in the Romantic Gardens! For more information, contact Kristin Decker at 303-370-8030.





Agave at the office or home

Ninety-nine percent of the agaves that I grow, I must grow as houseplants. Although these houseplants have not yet reached the grandeur that agaves do in the wild, their sculptural qualities liven up my interiors. All of the species I grow inside came to me as the result of "pups" (offsets) that grow around a larger plant. Until the larger plant blooms and dies, the pups don't necessarily create all their own food, but rather the larger plant's food supply supports them through a modified stem underground.

The biggest mistake I make with my agave houseplants is not to give them enough sun. They can take a lot of sun! If you don't have enough sun, the leaves will start to elongate and droop and the plant will lose the artichoke rosette shape that makes it so distinctive. The illustrations from older British books often show these elongated, drooping forms because the plants brought to Great Britain from the Americas were grown in conditions that were too shady. Perhaps they received too much water as well. Look for agaves in the cactus and succulent sections of the Fall Plant Sale and be sure to give them enough sun and not too much water.

Susan Eubank, Senior Librarian

A hearty harvest

The Community
Gardens at Denver Botanic
Gardens have had a fruitful
season thanks to hot sun,
healthy soil and hardworking gardeners. This
year our gardens have been
maintained by a diverse
group of Colorado gardeners, making for an eclectic
blend of techniques.

Among the patchwork quilt of plots is the garden maintained by Hangout Resources Incorporated, a group assisting survivors of brain injury. At the beginning of the season their garden plot looked more like a dirt patch than a place to grow vegetables, but they really turned it around by adding compost and organic fertilizers, and they have produced some terrific looking crops. Each week the group members



Food donations from generous Community Gardeners has been much appreciated by local organizations.

come out to observe the changes in their plot in addition to doing extra tasks throughout the garden. They have mulched and watered common areas and are eager to help out wherever it is needed. Jim McDuffy, one of the organizing members of the group, has expressed how the growth of a garden can make anyone feel good. His enthusiasm has extended past our community plots and into his new care home, where he has started another garden there and practices container gardening as well.

The Community Gardens have been able to support groups throughout town with food donations as well. Thanks to the direction of gardener Mary McGivern, we have a terrific donation program up and running in all three of our garden sites. Two community organizations, The Gathering Place and Project Angelheart, pick up organic food from the gardens weekly. The amount of food donated by gardeners has been outstanding, and is much appreciated by the organizations. It has been encouraging to see how effective community gardens can be, not only in producing healthy food for ourselves, but also in reaching out to many different corners of our larger community.

Estee Fleming, Community Gardens Coordinator



Tropical treasures such as this hibiscus await all who venture to Tropical Botanica for an educational tour.

Lead a trip to the tropics

Venture into the warm humidity of a tropical forest and take a group of students with you. On Tropical Forest Theme Tours, students in grades 3-7 can visit Tropical Botanica and the Discovery Room where they have a chance to test their spice I.Q., investigate live worms under a microscope and find out what really grows in sloth fur. The students need guides to take them there.

Training for this popular and successful tour program happens Tuesday and Wednesday, September 28 and 29. Tours take place Tuesday and Thursday mornings throughout the fall. People who love children and plants, whether or not they have experience, are encouraged to call 303-370-8020 and register for the training session. Call Lisa Castle at 303-331-5777 for more information.

Free Family Fun Pack!

Take your family on a Science Safari through the Gardens!

Use this coupon for one free rental of a Family Science Fun Pack (\$3 value)

Check out packs at the Information Desk. Valid through September 30, 1999.





Interest in horticultural therapy continues to blossom

Classes in the Denver Botanic Gardens Center for Horticultural Therapy Studies program continue to be popular with students from Colorado and across the country. The September 16-19 class, Introduction to Horticultural Therapy, surpassed all previous classes and was filled to capacity by mid-summer. The Certificate program began in the Fall of 1997 and graduated its first class in March 1999. With the inclusion of series III students, 32 of the 50 states will be represented. For more information about the program contact Christine Kramer at 303-370-8190 or email at Kramerc@botanicgardens.org.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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DON'T MISS...



After shopping at the Fall Plant Sale, make sure you have the right tools to do the job. The Gift Shop has expanded its selection of ergonomic tools to suit every need and offers lots of nifty gadgets, gloves, trellises and pots — everything from practical to pretty.

Green Thumb News

www.botanicgardens.org

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206

Editor: Julie Behrens Designer: Julie Rudofsky

Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

General information 303-331-4000 303-370-8032 Dr. Green plant information 303-370-8068 Tues. and Thurs., 1 to 3 p.m.

Planttalk (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

Offices Mon. through Fri., 8 a.m. to 5 p.m. Address changes

303-370-8060 Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049 **Chatfield Arboretum** 303-973-3705

Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits

On the cover: Peony 'Dawn Pink' by Jim Havey





From the Top

News from the Executive Director



Rob Proctor, an internationally-known horticulturist, has been appointed as the Gardens' new Director of Horticulture.

One of the most significant moments since I joined the staff of Denver Botanic Gardens came when Rob Proctor, one of the great names in United States' horticulture, said yes to my invitation to join us as Director of Horticulture. With Rob's tremendous experience and reputation in the world of horticulture, we are headed for a whole new era in making our garden one of the most exciting centers for horticulture. Our gardens are already superior thanks to the seven-plus years of past direction from Jim Henrich, our outgoing horticulture director who is off to start up his own speciality cut flower business. We also have a truly dedicated staff in place who plans and cares for the gardens. So what does Rob bring to us?

Rob comes to us with an unparalleled international reputation as an author, photographer, illustrator and horticulturist. He has designed some

truly wonderful gardens and has an outstanding knowledge of plants and the experience of how they grow which he learned in the best school in the world: the garden. To this, he adds his artistic touch to group plants in stunning and dramatic combinations. In addition, he loves working with other gardeners and will inspire his staff to reach new heights in all they do.

What has been so gratifying to me is the response to this appointment from all over the country. I've received many letters and calls telling me how excited people are by the prospect of what Rob will do for us. Although Rob has, for a long time, worked in the wings on such key areas as the Perennial Walk, we now offer him a starring role with the confidence that we are in for a thrilling performance.

Brinsley Burbidge, Executive Director



Q: The powdered leaf of what herb is thousands of times sweeter than sugar and has no calories?

This month's Plant Puzzler was provided by Janet Laminack, Horticulture Therapy Specialist.

A: Stevia rebaudiana, which is grown as a potted annual in the Gardens' Sensory Garden, can be used in place of sugar in foods.



Congratulations to the September Employee of the Month, Graphic Designer Julie Rudofsky. Julie is responsible for the design and printing of all of the Gardens printed materials. Her incredible talent is a tremendous asset and her computer graphic skills enable her to manage a huge number of projects with constant composure and a pleasant attitude.



So, what's there to see at Chatfield in the fall besides a great pumpkin festival? Plan to visit soon and discover life after summer.

Mule deer flourished nicely here in the summer, with bucks sprouting large, velvety antlers and a doe raising twins — a sign of deer in good condition after feeding on plentiful woody stems and forbs. In the fall, a greater dietary need will beckon the deer to the shrubby foothills. Elk will venture down to graze on our meadows, as grasses are their dominant diet in the fall. As you hike, look for the tracks or droppings of the moonlight-feeding elk.

If the droppings are extra large, they could be those of the black bear who ventured down to devour the last of the ripe chokecherries or wild plums before returning up Deer Creek for a winter's sleep. Coyotes also leave their mark on our trails, with tell-tale signs of their carnivorous and seedy diet!

Bring your binoculars, because a visit to the ponds may offer you a glimpse of migrating waterbirds that have stopped to feed on the wetland plants or fields of seeds on their trip south. Many of the songbirds will have already left for warmer climates to seek active bugs and forage, while winter hearty birds, such as chickadees, house finches and great horned owls, remain in the woodlands.

During the fall, wildlife frequently participates in the pruning of shrubs, the grazing of grasses, the sowing and dispersal of seeds and the aeration of soil. By supporting efforts to keep Chatfield's vegetation and wildlife migration routes and destinations in good shape, visitors (both human and animal) will continue to enjoy biodiversity in a healthy ecosystem at Chatfield.

Jackie Sanderson, Naturalist

Cover Story: Pumpkin Festival!

The pumpkins are ready for picking! The 11th annual Pumpkin Festival will be on Saturday, October 9 from 9 a.m. to 5 p.m. at Chatfield Arboretum.

Free hayrack rides provided by FRAPA (Front Range Antique Power Association) will take visitors from the parking lots to the main festival area where local vendors will offer a variety of crafts and foods sure to please everyone's taste. New this year will be an accessible hayride for people with special needs. The hayride will take visitors from the parking lot to the west end of the pumpkin patch. A giant haybale maze, a challenge for young and old alike, and free children's activities will be located by the old schoolhouse.

KOOL 105 radio celebrities will once again be on hand to entertain with a live remote from the festival. Pumpkins and gourds can be picked from the four- and a-half-acre pumpkin patch so be sure to bring your wagon or wheelbarrow to help carry your pickings. Pumpkins are individually priced according to size and shoppers can leave their pumpkins in the Pumpkin Daycare while enjoying the festival. Admission to the festival is \$4 for adults and \$2 for children 6 through 15. Members pay only \$2 for adults and \$1 for children. All children coming in costume and those five and younger will be admitted free.

With the big patch it's not necessary to come early for the best pumpkin, but please note that the patch closes at 5 p.m. For information, please call 303-973-3705.

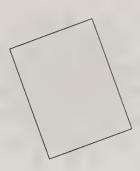


- Saturday, October 9, 9 a.m. to 5 p.m.
- •8500 Deer Creek Canyon Road, Littleton
- Plenty of free parking
- •4-1/2 acre patch to pick-your-own pumpkin
- Pumpkins priced according to size
- Free children's activities and craft and food vendors



Members of Denver Botanic Gardens' elusive resident fox family can be spotted occasionally during early morning walks through the south-west areas of the Gardens. The male, female and two-year old kit often vanish during the high-traffic summer months but become more visible again once the fall arrives and visitor attendance decreases.

Searching for new tropical medicinal plants



Plants are the basis for many effective medicines. This ancient idea is also a field of cutting-edge scientific inquiry. At the Bonfils-Stanton lecture on Wednesday, October 27, Dr. Paul Alan Cox will share his experiences searching for tropical medicinals and bridging the gap between the local plant knowledge of indigenous people and the Western medical establishment.

Dr. Cox, Director of the National Tropical Gardens in Lawai, Hawaii, has studied plants from Samoa to Lapland. Through interviews, field studies, and apprenticing himself to local healers, Cox has collected a wealth of information and plant specimens. He uses his knowledge to work towards both fighting diseases and saving tropical forests. In 1997, TIME magazine featured Cox as one of 11 "Heroes of Medicine" while he shared the Goldman Prize (the "Nobel Prize" of the environment) for his efforts to save tropical forests. Denver Botanic Gardens is proud to bring world specialists such as Dr. Paul Alan Cox to the Gardens as part of the Bonfils-Stanton Lecture Series.

Begun in 1987, the series is named in honor of the Bonfils-Stanton Foundation, whose generous support allows the Gardens to feature renowned speakers on a regular basis. Please plan on hearing Dr. Cox's fascinating lecture at either the 10 a.m. or 7 p.m. presentation in Mitchell Hall. To register, call 303-370-8020. The cost is \$8 for members and \$12 for nonmembers.

Trees, poems and glamour

On your next visit to Denver Botanic Gardens look for trees that express a feeling or that reveal a need for adornment. They impart an attitude of grace and sometimes glitter that will encourage you to linger and muse upon their presence.

Trees inspire the poetic nature in us. Needles of the Siberian conica larch (Larix russica 'Conica') are as soft as baby feet. Gracing the Wingsong Garden's meadow, a springtime search reveals the subtle burgundy of buds poised for new growth. The unique characteristics of needles and buds combine with the novelty of being a "deciduous conifer," creating interest in all seasons. The larch will drop its needles, which turn gold before falling off in winter, endearing it to gardeners and poets alike

The pendant form of the weeping Norway spruce (*Picea abies pendula*) at the entrance to the Education Building is a marvelous example of the natural world's ability to create amazing physical forms. It may evoke for some a visual expression of the human emotions of melancholy or sadness.

Tucked away in the Peony Garden, the fringe tree (*Chionanthus virginicus*) outclothes a bride in an imaginative



The elegant form of American hornbeams enlivens the autumn season.

sense. If the lacy white flowers aren't enough to invite inspection, perhaps the heavy fragrance will entice a closer look.

A grove of American hornbeams (*Carpinus caroliniana*) forest a portion of the Waring House garden. Their seductively muscular trunks and stems provide the sinuous framework for curious winged seeds that rustle in the autumn amid the mellow yellow foliage.

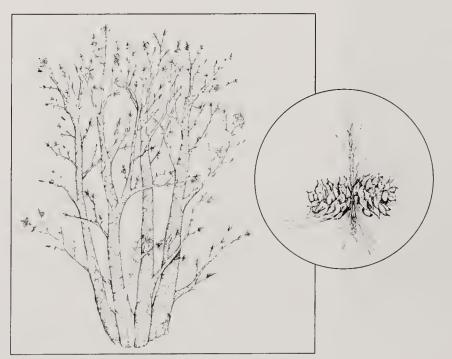
Towering above the Home Demonstration Garden spreads a swamp white oak (*Quercus bicolor*), "where leaves fall knee-deep in autumn" (*The Education of Little Tree* by Forrest Carter). Enticing shade and a bounty of acorns welcome you to relax and linger beneath its sheltering presence.

Plants just might share with people the desire for glitter and glitz. Giving the appearance of hundreds of earrings that respond to breezes, catkins appear in spring, dangling from branches of Turkish filberts (*Corylus colurna*). Quietly growing behind the O'Fallon Perennial Walk and in the Waring House garden, these sturdy hazlenuts' horizontal branches rarely need pruning.

Lastly, describing the green, cream and rose-colored variegation in the magnificent tricolor beeches (*Fagus sylvatica*) at the entrance to the Morrison Center might be best left to a poet. The unusual leaf coloration nearly masquerades as flowers as they unfurl in spring. The unique "spiltwine" effect beckons attention.

The month of October is known as the "moon of the painted leaves" in Native American lore. By providing poetic inspiration or just a sparkling fancy, a survey of the Gardens just might open one to the magic of trees.

Suzie Brown, Horticulturist



Pinus bungeana illustrations by Jayme Irvin.

Plant Profile

Pinus bungeana

Lacebark pine (*Pinus bungeana*) provides a wonderful example of the subtle beauty that nature bestows on plants. It is a handsome pine, prized for its exfoliating, camouflage-patterned bark. A mottled blend of silvery gray, olive green and brownish hues create a tapestry on the mature trunk and branches. The lustrous, rich green needles are stiff and rigid, defining the pyramid to rounded form of the tree. Lacebark pine is often multistemmed, becoming open and broadspreading with age.

A splendid grouping of these intriguing trees awaits your exploration in the upper level of the Wingsong Garden. Their visual artistry is rewarding in any season of the year.

Plant a tree for the future



Mild autumn months are one of the best times to plant trees.

The cool, clear days of autumn are ideal for planting trees. Moderate temperatures and cool nights allow plants to establish roots before winter takes hold.

Planting holes should be dug about two to four inches shallower than the overall depth of the tree's root ball, which should sit on firm, undisturbed soil. The diameter of the planting hole should be at least two times the diameter of the root ball. Roughing up the sides of the planting hole, especially if the soil is a heavy clay, will assist root penetration beyond the wall of the hole. Adding a moderate amount of organic amendment to the backfill may be necessary in very heavy soils. In average garden soils, this is probably not necessary and care should be taken to not overamend backfill, creating a "container" effect that results in retarded growth, as roots tend to stay in the amended soil as they would in a pot.

The top of the root ball should be about two to four inches higher than the surrounding ground. Fiber pots should be removed, as should at least the top half of burlap wrap on balled and burlapped trees. Any twine around the root ball should be removed as well as the top two-thirds of a wire basket if it is present. If left in place, wire, wrap or twine could girdle and eventually kill the tree.

As backfill is placed in the hole, water to settle the soil and eliminate air pockets. Avoid tamping the soil and continue to add backfill if settling continues over several days. Applying a wood chip mulch of several inches is advised for fall-planted trees. Check the moisture level

weekly by digging into the soil several inches and water as needed.

In windy areas newly planted trees should be staked using two steel t-bars or two two-inch by six-foot wooden stakes. One stake should be on the northwest side of the tree with the other placed on the opposite side. Use a grommeted nylon tree strap to connect the tree to the stake, allowing for some movement of the trunk. Staking and straps should be removed after a year.

Young trees, especially those with thin bark, should be wrapped the first and second winters after planting. This will help prevent sun-scald injury to the tree, which is caused by sudden temperature changes and water loss in late winter. The wrap should be removed each spring to prevent harboring of insects and diseases beneath the wrap. Use a commercial tree wrap and start at the base of the tree, overlapping the wrap upward to the second branch. Secure the wrap with a tack or staple.

Trees provide beauty and value to the landscape. Make the most of autumn by planting a tree for the future.

The 'Remembrance'® columbine

On September 13, AT&T Broadband & Internet Services (AT&T BIS, formerly TCI), Ball Horticultural Company, Denver Botanic Gardens, FTD (Florists' Transworld Delivery, Inc.), the growers of the Plant Select®, program and the Garden Centers of Colorado announced 'Remembrance,' a new Columbine plant named in memory of the victims of the Columbine High School tragedy. The new plant, never before available, will be offered to the public through regional garden centers, to help turn community grief into life through the language of flowers. Sale proceeds of 'Remembrance' will be contributed to fund the Jefferson Foundation scholarships for Jefferson County School District students pursuing higher education.

Aquilegia x hybrida 'Remembrance,' developed by Ball Horticultural Company, has a unique white and deep violet flower. Ball Horticultural Company has been testing this new plant regionally for several years and donated all the seed for propagation by local growers. The plant is a perennial, which will survive the cold, dry winters of Colorado and bloom yearly in the spring and early summer. 'Remembrance' has been endorsed by the Plant Select program.



The 'Remembrance' columbine, has been developed as a living memorial to the victims of the Columbine High School tragedy.

October 9 and 10, Orchid Show & Sale

"Twentieth Century Limited - celebrating the decades, trends and styles of the 20th century" is the theme of the fall show of the Denver Orchid Society. The show will be held in Mitchell Hall on Saturday from 10 a.m. to 5 p.m. and Sunday from 9 a.m. to 5 p.m. Several orchid growers from across the country will be present with a large variety of orchids for sale. Contact Ken Slump at 303-322-8338 for information.

October 1-15, Dandelion Magic

Information regarding the magic and majesty of the dandelion will be on exhibit from October 1 through 15 in the lobby flower case at Denver Botanic Gardens. Learn more about the healthful and edible qualities of this beautiful plant through this small yet helpful showcase.

October 16, African Violet Fall Sale

The Rocky Mountain African Violet Council will hold its annual fall sale from 9 a.m. to 4 p.m. in Mitchell Hall. The group will feature many different types of African violets and gesneriads. There will also be an educational booth where questions can be answered and information distributed to all. Admission is included with the general Gardens' entrance. For more information, call Nelly Levine at 303-423-6072.

October 30 and 31, Gardens Closed from Noon to 5 p.m.

The Gardens will be closed from noon to 5 p.m. for Goblins in the Gardens, a members-only Halloween event. Members with children who are interested in attending the 1 or 4:30 p.m. sessions should call 303-370-8187 for reservations.

November 12 and 13, **Holiday Gift and Garden Market**

Coming soon...find that perfect, unique gift at the Gardens' Holiday Gift and Garden Market on November 12 and 13 from 9 a.m. to 5 p.m. The market will offer a unique selection of garden-themed holiday goodies. Products available at the market are provided by the DBG Gift Shop volunteer groups and outside product vendors. Also, look for antique treasures from the Keepsake Collectibles division. Entrance is free. Call 303-370-8187 for information.

KEY FOR CALENDAR

Bold teal type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

Regular black type = Classes (CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION:

Gardens events 303.370.8187 Plant Society events open to the public. **Call 303.370.8097 for information.**



Mystery Roses*

Free Day at York Street A Holiday Birch Wreath*



5

5-10 DBG Travel Adventu to Southern California **Bonsai Society meeting** Beginning Bonsai* Botany for Gardeners*

Hot Frames*

10

Denver Orchid Society **Show and Sale**

11

Colorado Mycological Society mtg.

People/Plant Interaction: Application and Research (series II)* A Holiday Birch Wreath* Home Herbal Medicine Chest* Orchid Workshop*

12

Cactus Society meeting

Beginning Drawing Plants ir Pen and Ink - Section I* Beginning Drawing Plants in Pen and Ink - Section II*

17

American Begonia Society meeting The World of Tea*

18

Beginning Botanical Colored Pencil Section III*

The New Formality: Classical Design Elements in Contemporary Gardens* 19

Bonsai Society meeting Identifying Our Feathered Fr

24

Container Herb Gardening*

25

Ultra Violet Club meeting

26

Native Plant Society mee

31

Gardens closed at noon for **Goblins in the Gardens event Goblins in the Gardens** for members only

* Preregistration is required for all classes. Call 303.370.8020.



DENVER BOTANIC GARDENS TRAVEL ADVENTURES 2000

HAWAII, A THREE-ISLAND ODYSSEY

HIKING, SEA KAYAKING, SNORKELING AND WHALE WATCHING MARCH 1 TO 11, 2000

Referred to by Mark Twain as "the loveliest fleet of islands that lie anchored in any ocean," these lush volcanic gems are cut by spectacular gorges and valleys, and fringed by unspoiled beaches and coral reefs. As the world's most isolated archipelago, 90% of the fascinating flora and fauna from Hawaii exists nowhere else on earth. On Kauai "The Garden Isle," tour participants can hike through unique vegetation of Norfolk pine, swamp mahogany, guava and orchids. Hiking the famous Na Pali Coast and Waimea Canyon will be breath-taking as will sea kayaking the secret shores of Kipu Kai. Hiking in Haleakala National Park on Maui, "The Valley Isle," offers



the opportunity to search for the rare silversword plant, the nene goose (Hawaii's state bird) and other endemic plants and wildlife. One afternoon will be spent watching the humpback migration. "The Big Island" offers a kaleidoscope of diverse ecosystems to be explored, including tropical rain forests, snowcapped mountains deserts, beaches and of course, volcanoes.

The price of this 11-day tour is \$2395 per person and includes: lodging (bed and breakfasts), most meals, ground transportation, activities, instruction, inter-island airfare (once trip begins) and professional naturalist guiding services. A \$400 deposit is required with final payment due by December 31. The tour is limited to 13 participants.

This trip is rated "moderate." Hikes, four to six miles over some rough terrain, and sea kayaking, require moderate physical fitness.

For information call Pam Rathke,
Denver Botanic Gardens' Travel Coordinator, at 303-370-8051.

CHARLESTON, BEAUFORT AND SAVANNAH

GARDENS, PLANTATIONS AND HISTORIC SITES MARCH 22 TO 27, 2000

Charleston, which sits on a peninsula where the Ashley and Cooper rivers meet the Atlantic, is exceedingly rich in culture, history, and gracious old well-kept homes with glorious gardens. This adventure will tour nearby plantations ablaze with azaleas and camelias, as well as several private gardens and homes in this gracious southern city. Beaufort, located on Port Royal Island, 90 miles south of Charleston, is a fetching seaside town which boasts the single richest concentration of antebellum dwellings in America. While in Beaufort, tour members will participate in the St. Helen's Episcopal Church candlelight tour of private homes and gardens. Savannah, the setting for the now famous movie and bestselling book, *Midnight in the Garden of Good and Evil*, hosts 22 public squares and miniature parks that are lush with masses of exuberant flowering shrubbery, majestic magnolias and bubbling fountains.

Please call for the pricing of this travel adventure which explores the area's gardens, and the area's rich culture and history.

This trip is rated "easy." Walking tours of short duration and distance can be expected.



y Productions



THE IMPRESSIONIST ROAD FOR ARTISTS

PARIS, GIVERNY AND PROVENCE MAY 24 TO JUNE 2, 2000

Join artists, Rob Proctor, Denver Botanic Gardens' Director of Horticulture, and Susan Fisher, a renown botanical illustrator, for this unique tour of France. Designed for botanical artists, this tour allows participants to paint, draw or sketch their way through the incredible gardens and countryside made famous by impressionist painters such as Monet, Cezzane and Van Gogh. The tour begins with two days in Paris to tour the Musee d'Orsay and Parisian gardens before departing for Giverny and Monet's Garden. The remainder of the tour will be spent in Provence recreating great impressionist works in the countryside and villages of this inspirational area of France. Most mornings will be dedicated to painting and sketching with Rob and Susan available to lend instruction and advice. Afternoons will be free to explore or continue your work. Group tours to Les Baux, Gordes, Lacoste, and Lourmarin to explore the gardens, vineyards, ruins and cathedrals are also planned.

This trip is rated "easy." Walking tours of short duration and distance can be expected.

THE IMPRESSIONIST ROAD FOR HIKERS

PARIS, GIVERNY AND PROVENCE
JUNE 7 TO 18, 2000

The Impressionist Road for Hikers has been developed for the adventurer. Participants will spend eight days in Provence exploring the old haunts of the impressionists by hiking through small towns, vineyards, forests and hillsides. Admire the village settings and countryside near St. Remy that inspired Van Gogh. Tour the areas around Lacoste and Lourmarin, Cezanne's favorites. Other days will include journeys to Arles, Les Baux, Gordes and Aiz-en-Provence. Gardens, ruins, cathedrals, chateaux and castles will be visited. Two days will also be spent in Paris to tour the Musee d'Orsay, Parisian gardens and Monet's Garden in Giverny.

This trip is rated "moderate." Hikes range from four to six miles per day and can be hilly. More miles per day are available.

Please call for pricing on both Impressionist tours.

THE AMAZON

RIVERS, JUNGLE LODGES AND RAIN FOREST ECCONTINUING EDUCATION CREDIT AVAILABLE
JUNE 30 TO JULY 9, 2000



Come explore Amazon and I credits in the 2300 miles up port of entry Jungle hikes t rain forests w sity of plant a numerous exc utaries and a plex ecosyste versity, hydro Visits to local opportunies f optional exter Picchu will be

The price of this 10-day tour is \$2395 per person and includes: co from Miami, lodging, most meals, land and water transportation, deposit is required by with final payment due April 28. Non-educ

This trip is rated "moderate" due to the hot, humid climate and the are generally one to three miles in length.

WINTER PARK WILDFLOWERS

8TH ANNUAL WILDFLOWER TOUR JULY 20 TO 23, 2000

Join Barbara Baldwin, Knobby Brown and other Gardens' members in Winter Park for the annual wildflower weekend. Hike from the tundra to the montane in search of fields of magnificent wildflowers. This hunt will travel to scenic areas such as Rollins and Corona Passes. Lodging will be at the private Colorado Arlberg Club which was founded in 1929.

The price of this four-day tour is \$545 per person and includes: lodging, all meals, motorcoach transportation, activities and guiding services. A \$100 deposit is required with final payment due April 14. The tour is limited to 25 participants.

This trip is rated "moderate." Hiking trails will be at timberline, may be one to two miles in length and over uneven terrain.

CHARLESTON, BEAUFORT AND SAVANNAH

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Productions



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This trip is rated "moderate." Hikes range from four to six miles per day and can be hilly. More miles per day are available.

Please call for pricing on both Impressionist tours.

THE AMAZON

RIVERS, JUNGLE LODGES AND RAIN FOREST ECOLOGY CONTINUING EDUCATION CREDIT AVAILABLE JUNE 30 TO JULY 9, 2000



Come explore the steaming jungles of the Amazon and receive continuing education credits in the process. Iquitos, Peru, located 2300 miles up the Amazon River, will be the port of entry for this tropical expedition. lungle hikes through primary and secondary rain forests will expose us to the broad diversity of plant and animal species. There will be numerous excursions on the Amazon, its tributaries and adjoining lakes to study this complex ecosystem. Studies will focus on biodiversity, hydrology, ecology and ethnobotany. Visits to local villages will provide great opportunies for cultural exchange. (An optional extension to Lima, Cuscu and Machu Picchu will be offered.)

The price of this 10-day tour is \$2395 per person and includes: continuing education credits (TBD), airfare from Miami, lodging, most meals, land and water transportation, activities and guiding services. A \$400 deposit is required by with final payment due April 28. Non-educators are welcome.

This trip is rated "moderate" due to the hot, humid climate and the condition of some jungle trails. Hikes are generally one to three miles in length.

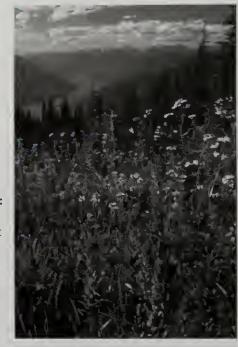
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This trip is rated "moderate." Hiking trails will be at timberline, may be one to two miles in length and over uneven terrain.



NG AND PHOTOGRAPHY



Naturalist guides and renown photographer Charles Mann will lead this unique northern adventure starting with wildflower hikes near Lake Louise and Moraine Lake. The adventure includes a helicopter ride to our remote lodge in British Columbia. The Adament Lodge, located in the Selkirk Mountain Range will be the tour's wilderness home. Each day participants will

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CHINA EXPLORER

GARDENS, MUSEUMS, RIVERS AND MOUNTAINS OCTOBER 4 TO 22, 2000



Shanghai provides the start and end to this adventure. Some of the unique destinations are Suzhou, Nanjing, Guilin, Kunming, Dali, Lijiang and the Yangtze River. With trip host, Panayoti Kelaidis, Gardens' members will tour botanical gardens and farms and will hunt for mountain wildflowers. Learn about Chinese history and culture with visits to exceptional museums and temples. Mingle with the local peoples in open-air markets and sample the numerous varieties of Chinese cuisine. Sail the magical Li River through the 300'-tall pillars of limestone. Be hosted to a special dinner in Denver's sistercity of Kunming. No trip to China would be complete without a cruise on the Yangtze River. Three days will be spent exploring the river's gorges, tributaries and villages.

The price of this 18-day tour is \$5495 per person and includes: all air (from Denver and intercontinental), lodging, all meals, ground transportation, activities, guiding services and gratuities. A \$500 deposit is required with final payment due July 5. The tour is limited to 18 participants.

This trip is rated "easy." Walking tours of short duration and distance can be expected.

TRIP ACTIVITY RATINGS

To help you decide which trip is right for you, DBG has created an activity rating scale: easy, moderate and strenuous. "Easy" trips generally involve walking, and, or light hiking for short durations and distances over gentle terrain. "Moderate" trips are a little more difficult and can involve hiking for two to six miles over more challenging terrain. "Strenuous" trips involve activities that require excellent physical fitness and can involve hiking five to ten miles a day over varied terrain. Both "moderate" and "strenuous" trips may involve other activities such as rafting, canoeing, bicycling or kayaking. Please call for any clarification of further explanation.

RESERVATIONS AND PRICING

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1

Free Day & 11 a.m. Tour Chatfield Arboretum



2

Gloxinia, Gesneriad Growers mtg.

Botanical Illustration from Photographs* Understanding Front Range Soils* Homestyle Tinctures* Forcing Bulbs* Herb Topiaries* Negotiating with the Natives*

Natural Herbal Pet Care*

7

A Healthy Kitchen Garden* A History of Herbs*

8

9

Pumpkin Festival Chatfield Arboretum **Rocky Mountain Orchid**

Judging Center Denver Orchid Society Show and Sale



13

Beginning Botanical Colored Pencil Section I*

Beginning Botanical Colored Pencil Section II*

The Perennial Advantage: Part I*

14

Rose Society meeting

Advanced Botany for Artists Section I* Advanced Botany for Artists Section II*

China: The Mother of Gardens*

15

Botanical Illustration in Pencil II Section I* Botanical Illustration in Pencil II Section II*

16

Rocky Mountain African Wiolet Council Fall Sale

Natural Soap* Pioneer Graves at Fairmount Cemetery* Winterize Your Rose Garden*

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North American Rock Garden Society meeting Herb Society of America meeting Gardener's Ecology*

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Great Garlic* Wild, Tasty Weedies* 22

Rocky Mountain Horticulture I: Gardening Principles*

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Flowers: Up-Close and Personal* Herbal Wish Bundles* Natural Soap* Ornaments from Natural Materials* Papermaking with Herbs*

27

Bonfils-Stanton Lecture

The Search for New Tropical Medicinal Plants*

28

Gardeners of America meeting

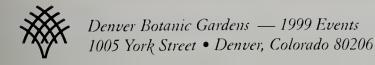
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Bonsai Society workshop Gardens closed at noon for **Goblins in the Gardens event Goblins in the Gardens**

for members only





CANADIAN ROCKIES

WILDFLOWERING, HELI-HIKING AND PHOTOGRAPHY AUGUST 1 TO 9, 2000



Naturalist guides and renown photographer Charles Mann will lead this unique northern adventure starting with wildflower hikes near Lake Louise and Moraine Lake. The adventure includes a helicopter ride to our remote lodge in British Columbia. The Adament Lodge, located in the Selkirk Mountain Range will be the tour's wilderness home. Each day participants will

helicopter to a new wildflower location to hike and photograph the alpine beauty. After a gourmet meal, evenings can be spent relaxing, discussing photographic techniques or just enjoying the mountain solitude.

The price of this nine-day tour is \$2695 per person and includes: lodging, most meals, ground transportation, daily helicopter service, activities, instruction, professional photographer services and professional naturalist guiding services. A \$400 deposit is required with final payment due May 5. The tour is limited to 18 participants.

This trip is rated "moderate." Hiking will often be at timberline, may be several miles in length and over uneven terrain.

NOVA SCOTIA FALL HIKER

CAPE BRETON & THE BAY OF FUNDY SEPTEMBER 13 TO 20, 2000

Steeped in Celtic influence, Nova Scotia is a wonderful fall destination. Heading north out of Halifax, the first stop is near the town of Canos to hike the seaside trails overlooking the Atlantic. The next few days will be spent on Cape Breton Island. From blueberrylined trails, to spectacular coastal walks, the famous Cabot Trail offers many wonderful hikes. Lodging will be at the famous Keltic Lodge which has great views of the ocean. The last stop is Wolfville, for a grand finale hike to the Bay of Fundy where some of the highest tides in the world occur.



The price of this 8-day tour is \$1695 per person and includes: lodging, all meals, ground transportation, activities and guiding services. A \$400 deposit is required, with final payment due June 16. The tour is limited to 15 participants.

This trip is rated "moderate." A variety of hiking trails usually exist for all abilities. Hikes range from 4-6 miles per day. More miles per day are available.

CHINA EXPLORER

GARDENS, MUSEUMS, RIVERS AND MOUNTAINS
OCTOBER 4 TO 22, 2000



Shanghai provides the start and end to this adventure. Some of the unique destinations are Suzhou, Nanjing, Guilin, Kunming, Dali, Lijiang and the Yangtze River. With trip host, Panavoti Kelaidis, Gardens' members will tour botanical gardens and farms and will hunt for mountain wildflowers. Learn about Chinese history and culture with visits to exceptional museums and temples. Mingle with the local peoples in open-air markets and sample the numerous varieties of Chinese cuisine. Sail the magical Li River through the 300'-tall pillars of limestone. Be hosted to a special dinner in Denver's sistercity of Kunming. No trip to China would be complete without a cruise on the Yangtze River. Three days will be spent exploring the river's gorges, tributaries and villages.

The price of this 18-day tour is \$5495 per person and includes: all air (from Denver and intercontinental), lodging, all meals, ground transportation, activities, guiding services and gratuities. A \$500 deposit is required with final payment due July 5. The tour is limited to 18 participants.

This trip is rated "easy." Walking tours of short duration and distance can be expected.

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Pumpkin Festival Chatfield Arboretum **Rocky Mountain Orchid Judging Center** Denver Orchid Society

Show and Sale



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Bonfils-Stanton Lecture

The Search for New Tropical Medicinal Plants*

28

Gardeners of America meeting

29

30

Bonsai Society workshop Gardens closed at noon for Goblins in the Gardens event Goblins in the Gardens

for members only





Goblins visit the Gardens

The annual members' Halloween extravaganza will be held during the afternoons of October 30 and 31 from 1 to 3 p.m. and 4:30 to 6:30 p.m. Visitors will be able to "trick or treat" through a haunted trail and will be delighted by special craft projects, story telling and fortune tellers. Live entertainment and refreshments will be provided during each session.

The price is \$8 for adults and \$6 for children ages 15 and younger. Ages 2 and younger are free. Reservations are a must and all sessions usually fill up quickly. You may respond by mail as soon as you receive your invitation card or, starting October 4, you may make telephone reservations by calling 303-370-8187.



Membership drive at Pumpkin Festival

To promote membership of Denver Botanic Gardens, which includes access to Chatfield Arboretum, the York Street Gardens and many special events, the Gardens' Membership department will be selling memberships near the admission stations at the Pumpkin Festival.

All families renewing memberships or signing up for new memberships will receive free admission to the Festival. Be sure to tell your friends to come on down and join!





Take advantage of a win/win opportunity

If you own stocks that have appreciated in value and you'd like to avoid paying capital gains, do something special for the Gardens and give a gift of appreciated securities. In addition to these benefits, your gift will help support the programs and services that the Gardens offers to hundreds of thousands of visitors every year. Call 303-370-8030 for information or to transfer stock today!



A sell-out crowd enjoyed the Monet Garden in the moonlight at the Gardens' annual Fete des Fleurs black tie gala.



Benefits today, benefits tomorrow

As the conclusion of the tax year approaches, people are often spurred to complete their charitable giving by year-end to secure a charitable deduction. That's a tax-wise way to end the year. What if that same gift allowed you to also begin the new year in an equally beneficial way - with lifetime income, attractive rates of return, tax benefits and a very special ultimate legacy to Denver Botanic Gardens?

Please consider the Gardens' charitable gift annuity, which is a gift plan that benefits you now and later, and will become a significant gift for the Gardens. Following are a few points explaining the charitable gift annuity. We hope you'll consider this as a gift opportunity to include in your year-end giving plans.

Attractive rates

Charitable gift annuities offer rates based on your age at the time of your gift with the most attractive rates beginning at age 65 and over. For example, a 75-year-old funding a \$10,000 gift annuity (which is our minimum amount) would receive a rate of 8.2%. For some individuals who rely on income from Certificates of Deposit, funding a gift annuity can represent an increase in their income.

Reliable lifetime income

It's nice to know you can count on a specific amount of payment no matter what happens to the financial markets. As a set rate, fixed income gift, annuity payments do not change from year to year. In return for your gift, Denver Botanic Gardens contractually agrees to pay you (and another if you choose) a lifetime income. That income is a function of the gift annuity rate and the amount of your gift. As an added plus, part of each annuity payment may be tax-free.

Income tax deduction

Because a charitable gift annuity is partly a gift and partly an investment in an annuity contract, you should be entitled to an income tax deduction for the gift portion of your annuity if you itemize your taxes.

Preserve our treasure

Perhaps your greatest benefit from a Gardens' gift annuity will be your partnership with us in educating others and preserving this precious treasure we call home.

To find out more or receive a personalized illustration, simply contact me at 303-370-8027.

Jennifer Darling, Director of Development



Memorials and Tributes

In memory of Frederick N. Zeiner

Ms. Syd Glick

Dr. and Mrs. Moras L. Shubert

In memory of Margaret Hannah

Ms. Joy Hood

In memory of Else J. Burger

Mr. William P. Burger

Mr. and Mrs. Robert K. Burger

Mr. and Mrs. Rick Burger

Mr. Roy L. Burger

In memory of Mary Belle Grant

Ms. Harriett Rydstrom

In memory of Sharon Muhlick

Dr. and Mrs. Moras L. Shubert

In memory of Mrs. George Robinson

Ms. Ann B. Waterman

In memory of Matthew Thomas Cole

Bunny and Jack Wanner

Ms. Barbara Barksdale

In memory of Mary Ellen Owen

Mr. and Mrs. Charles W. Cleworth

Ms. Jacqueline Hall

Alba R. Glassburn, Jr.

Helen B. Glassburn

Dr. Richard D. Talbott

Ms. Dorothy S. Peirson

Ms. Sally V. Allen

Mr. and Mrs. Dennis E. Baldwin

Mr. and Mrs. Thomas Creighton

Mr. and Mrs. Wayne VanVleet

Mr. and Mrs. Douglas Nutt

Ms. Harriett L. Rydstrom

Mr. and Mrs. William H. Kistler

Ms. Doris O. Clarke

Ms. Sarita Behr

Ms. Carole Shaw

Mr. and Mrs. Warren Sheridan

Mr. and Mrs. George Gibson

Mr. Caleb F. Gates, Jr.

Swayback Ranch



Commemorate the 20th Century!

Celebrate the turning of the century with an engraved brick! Capture your memories and remember special loved ones in our Romantic Gardens. A \$200 brick is fully tax deductible and will remain in the Gardens forever as a timeless treasure! For more information on these special gifts, call Kristin Decker at 303-370-8030.

The 1999 Tempel Nature Lecture



As the millennium approaches, Denver Botanic Gardens is placing a stronger emphasis on the conservation of plants in the Rocky Mountain region through research and education. The Gardens is taking a lead role in reducing the loss of native plants and their habitats. Join Carol Dawson, Director of Research Programs at Denver Botanic Gardens, on Tuesday, November 9 at 7 p.m. in Mitchell Hall. She will share beautiful photographs of Colorado's high elevation sagebrush steppes (plains) and the rare plants she studies. Carol's doctoral thesis examined Astragalus osterhoutii and she also has studied other rare plants including Penstemon harringtonii. In addition, Carol is the Western Regional Principal Investigator for the Center for Plant Conservation. This national consortium of botanical gardens researches and works towards saving rare and endangered plants.

The lecture and slide program focuses on native wildflowers and plant communities of Colorado. The program began in 1997 to honor Major General Carl W. Tempel, a wildflower photographer. Call 303-370-8020 to register. Walk-in registrations the evening of the lecture are also welcome. The cost is \$8 for members and \$12 for nonmembers.

How the West Is Won: Colorful, Resilient Plants

Denver Botanic Gardens proudly features three shooting stars of the regional gardening scene: Marcia Tatroe, Susan Yetter and Kelly Grummons, at a day-long gardening symposium on Saturday, November 6.

Once upon a time, Western gardeners tried in vain to design their gardens with Eastern plants, but no longer. Western plantings of compatible perennials, trees and shrubs have come into their own and offer a tapestry of color, form and texture. Success in putting together a stunning mixed flower garden requires the knowledge of the best regional plants that are now available to gardeners.

Join these well-known Front Range gardeners as they share their experiences in combining balance and rhythm to create memorable plant compositions. "Little House on the Prairie Revisited" with Marcia Tatroe showcases western-style cottage gardens; "Sweethearts of the Rodeo" by Susan Yetter features charming perennials deserving the spotlight; and, Kelly Grummons' "Conifers of the Wild, Wild West" highlights the often misunderstood, but very much loved, evergreens. The program will end with a brief question and answer period with all the speakers.

Watch for more great ideas from these experts as they work closely with Rob Proctor, DBG's new Director of Horticulture. Attend November 6 and learn how to apply their great ideas to your own yard. Space is limited in this exciting program. The cost is \$46 for members and \$57 for nonmembers. Please call 303-370-8020 for registration information.



What to do with gourds?

Are your gourds ripening on the vine? If so, be sure to let them ripen completely. You'll know they are fully ripe when the vine starts to wither. Don't test for ripeness with you fingernail as people do with pumpkins, because the wound created will rot instead of drying.

Gourds are very susceptible to frost; therefore the Colorado Front Range season often ends up being a little short for some gourds. You can extend the season slightly by protecting them from light frosts with light-weight frost blankets. Even with protection, not every gourd will ripen before they need to be brought inside. Fortunately, gourds are prolific, so you should have enough ripe ones for several different uses.

Once inside, store gourds in a dry, well-ventilated place. After three weeks or so, wash them and scrape off the layer of moldy skin that may develop during the drying process. The gourds are then ready for use. The list of gourd usage stretches far beyond seasonal table dressing. Throughout history and even today, gourds have been used as baby rattles, drums, dishes, xylophones, trumpets, divination devices, beer mugs, quivers, spoons, masks, medicinal supplies, cricket jars and many other things.

Books in the Helen Fowler Library used for this article:

Berns, Marla C. and Barbara Rubin Hudson. The Essential Gourd: Art and History in Northeastern Nigeria. Los Angeles, Calif.: Museum of Cultural History, 1986. GN 653 .B47 1986
Gourds: Their Culture and Craft. [S.I.]: Gourd Society of America, 1966. SB 413 .G6 G6 1987.
Organ, John. Gourds: Decorative and Edible for Garden, Craftwork and Table. Newton, Mass.: Charles T. Branford Co., 1963 SB 413 G6 O7 Summit, Ginger. Gourds in Your Garden: A Guidebook for the Home Gardener. Los Altos, Calif.: Hillway Press, 1998. SB 413 .G6 S85 1998.

Be a Botany Buddy

Want to take a smell test? Identify a pine cone by touch or pick lavender for your pizza?

If you have been wandering at the Gardens and been asked any of these questions, you probably ran into a Botany Buddy at one of the Gardens' new touch carts. Botany Buddy volunteers have been "manning" the Behind the Senses of Smell and Taste Cart to help visitors learn more about herbs through the sense of smell. At the Conifer Cart, visitors learn to identify firs, spruces and pines by touch after sticking their hands into the mystery box to feel what's lurking there.

Botany Buddies are enthusiastic volunteers who like to spend a few hours sitting in a beautiful garden and encouraging passers-by to come learn about plants. If this sounds like a job you might be interested in, call the Volunteer Office at 303-370-8049.

Anne Ophelia Dowden receives literary award

Botanical Illustrator Anne Ophelia Dowden was awarded the Gertrude B. Foster Award for Excellence in Herbal Literature on June 19, 1999 by the Herb Society of America at its annual meeting in Toronto. Dowden's beautiful works, ranging from children's plant books to pieces in *Natural History* and *House* Beautiful, have earned acclaim from the Children's Book Council, the American Library Association and the American Institute of Graphic Arts.

Dowden, now a Boulder resident, has donated many samples of her highly detailed illustrations of plants to Denver Botanic Gardens. Visitors can view examples of her work among the collections at the Helen K. Fowler Library and learn to create their own works of art in a similar style through the Gardens' School of Botanical Illustration.

Sensory tour guides honored

Denver Botanic Gardens' Sensory Garden volunteer tour guides were recently honored with the Directors of Volunteers in Agencies (DOVIA) "We Count On You" Award. This award recognizes one group each year for outstanding volunteer service in Denver. "We Count On You" is the second major award the sensory guides have received. In 1993, the guides were honored with the Mile High United Way's "Today is the Day for Outstanding Volunteers Programs" award.

Sensory guides conduct hands-on, interactive tours of the Sensory Garden at the Gardens' Morrison Center. Guides encourage participants to use all of their senses and view the garden at their own pace, making the hour visit more of a "garden experience" than a tour. The target audiences for sensory tours are people with special needs, primarily people in rehabilitation programs or residential facilities. The diverse range of tour participants includes people of all ages, from young children to seniors.

Individuals on sensory tours can be emotionally or mentally challenged, physically disabled or economically disadvantaged. Since every tour group is different, every tour is unique and enables all participants to enjoy their time in the great outdoors, all thanks to our dedicated sensory tour guides. Thanks and congratulations to this great group of volunteers!

China beckons armchair gardeners

E.H. Wilson, perhaps the greatest plant explorer in Asia, called China the "Mother of Gardens" because the majority of many of the world's common garden plants originated there. China is home to ten percent of the world's flora, and it is likely that many of the best plants have yet to be introduced to Colorado gardens.

On Thursday, October 14 at 7 p.m., join Jim Henrich, the Gardens' former Director of Horticulture, and Panayoti Kelaidis, Rock Alpine Garden Curator, as they recap the highlights of their recent spring trip to China to attend the International Horticultural Expo in Kunming. This Expo in Denver's Chinese sister city, featured gardens from dozens of countries and every Chinese



province. You'll see slides of the areas around Beijing, Qu Fu (hometown of Confucius), the truly tropical rainforest in Xishuangbana, the glacier-clad heights of the Jade Dragon Mountains, the ancient monuments with heritage trees near Peking (with a climate similar to Denver) and the lush peninsula of Shantung.

Come glimpse the changing dramas, both natural and man-made, emerging in modern China during this unique program. Jim and Panayoti will be available after the program to answer your questions. Admission is \$12 for members and \$15 for nonmembers. Call the registration office at 303-370-8020 to register.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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DON'T MISS...



Keepsake Collectibles

Volunteers are standing by...to accept donations of your special objects. An exciting collection of varied antiques and collectibles is being assembled by members of the DBG Guild for sale at the Holiday Gift and Garden Market on November 12 and 13. Please bring donations to the Information Desk or call 303-278-7566 to request a personal pick-up of your item.

Green Thumb News

www.botanicgardens.org

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

Tues. and Thurs., 1 to 3 p.m.

Plant*talk* (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014 *Sun. through Sat., 9 a.m. to 5 p.m.*

Offices

Mon. through Fri., 8 a.m. to 5 p.m. Address changes 303-370-8060 Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049

Chatfield Arboretum 303-973-3705
Open every day, 9 a.m. to 5 p.m.
Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: A boy and his pumpkin by Wendy Tucciarone.

Green Thumb News

November 1999

Holiday Gift Garden Market



35th Annual Holiday Sale November 12 and 15

Cover Story on page 3



From the Top

News from the Executive Director

Tropical Botanica celebrates its first birthday this month and my how our baby has grown! If you haven't been into the Conservatory since we re-opened it last November, please pay it a visit. Not only will tropical warmth be a welcome relief from the chilly winds of winter but you will be shocked by the phenomenal rate of growth that is characteristic of tropical vegetation. In a year, we have gone from open forest to an all-embracing tropical paradise.

Last year Gary Davis and his crew did a superb job of getting all the plants in place in time for the opening and they did everything in their power to encourage growth to create a lush tropical environment. Since then, the plants have responded. In fact, they have responded so well that the role of the horticultural staff is now to keep the vegetation under control.

I've gardened in the subtropics (south of Miami) for four years and I know first-hand not only how rewarding horticulture can be with 365 growing days each year, but also how relentless and exhausting it can be with no rest period and no help from the weather for pest management. I miss it, but like all of you, I have only to go into the Conservatory, where we control the seasons, to enter the world of palms, orchids bromeliads, and aroids (all of which are important collections). Snow may be falling outside, but for all Colorado residents, the tropics are within only a short driving distance. The great advantage is that we never have to deal with the threat of hurricanes or the assault of mosquitoes!

Do please pay us a visit and see what a difference a year has made.

Brinsley Burbidge, Executive Director



Enjoy a "Tree-mendous" day!

Plan an outing in the country with family or friends to pick out your Christmas tree at Chatfield Arboretum's fourth annual "Tree-mendous" tree sale. The December 4th fund-raising event, open from 10 a.m. to 4 p.m., will offer high-quality Christmas trees, wreaths, crafts and honey. You can also have your picture taken with Santa, enjoy seasonal refreshments and create special holiday crafts with your children.

The sale features two different types of trees. The aromatic "Douglas fir" sports rather long, flat needles that are blunt at the tip, soft to the touch, and radiate out in all directions from the branch. This dark green tree is one of the most popular Christmas tree species. The other tree offered, the premium "noble fir," is a true fir. It has long, blunt-tipped four-sided needles that are bluish-green and curved upward on stiff branches. This beautiful, perky tree may take on a silvery appearance because of white rows of stomata on the underside of the needles.

You'll find the festivities at Chatfield Arboretum, just south of C-470 and west of Wadsworth on Deer Creek Canyon Road. Admission to the sale is free. To pre-order trees, return the form on the last page of this newsletter or call 303-973-3705.



Employee

of the Month

Congratulations to our October
Employee of the Month, Jennifer
Darling, Director of Development and
Membership. Jennifer leads her department with enthusiasm and sets an example for leadership at the Gardens. She
has built a strong development team that
has dramatically increased its revenue
since 1997, and she continually goes
beyond her job responsibilities when
helping with the Gardens activities and
events. Jennifer is always a pleasure to
work with and exemplifies what it means
to be a truly great employee!

???? Plant Puzzler

Q. What priceless botanical jewel is on display at the Fairchild Tropical Garden in Coral Gables, Florida?

This month's Plant Puzzler was provided by Brinsley Burbidge, Executive Director.

A. The legendary Maharaja "coconut pearl," a shiny calcareous sphere that forms inside a coconut (Cocos nucifera), much like the pearls of oysters and giant clams. The chances of finding one of these rare coconut pearls is less than one in a million.



Cover Story: Holiday Gift and Garden Market

The holiday season is fast approaching and what better place to shop for all of your special gifts than Denver Botanic Gardens' 35th annual Holiday Gift and Garden Market. You will find a wonderful selection of unique items created by members of the Gardens' volunteer groups and 45 outside product vendors. The proceeds from the Holiday Gift and Garden Market will be used to develop and enhance the outdoor gardens at Denver Botanic Gardens.

You'll find scented candles, handmade papers and paper products, dried floral arrangements and wreaths, botanical illustrations, handpainted clothing, potpourri, fragrances, gifts for children, stocking stuffers, holiday ornaments and decorations. Gardeners will appreciate the landscape architecturals, pottery, garden troughs, gardening tools, botanical tile tables, fountains and rustic twig furniture. For anyone who cooks, or eats, there will be gourmet foods and candies, herbal seasonings, gift baskets, teas and related accessories. A new booth this year will sell everything you need for arranging flowers. And, don't forget to stock up on Chatfield honey and the Guild volunteer group's famous herbal vinegars made with fresh herbs harvested from the Gardens' herb garden.

The popular Keepsake Collectibles section will offer an assortment of antique and collectible items such as glassware, linens, amber jewelry and home accessories donated by friends of the Gardens. If you have keepsake items to donate, it's not too late. Please bring items to the Information Desk by November 8. If a pick up is required, please call 303-370-8049.

The Holiday Gift and Garden Market will be held in Mitchell Hall on Friday and Saturday, November 12 and 13 from 9 a.m. to 5 p.m. and admission is free. As always, members will receive a 10 percent discount on their purchases. The Gift Shop also has an exciting new collection of holiday gifts and will be open during the sale. Volunteers will be on hand to gift wrap your purchases.



Members of the Denver Botanic Gardens Guild volunteer group have collected herbs throughout the year in preparation for the Holiday Gift and Garden Market. After collecting and drying the herbs, the Guild goes indoors to transform the plants into many different products including dried floral arrangements and herbal vinegars.

Holiday concerts

Denver Botanic Gardens is renowned for its dazzling holiday light display and every year is more spectacular than the last. For a memorable evening, come enjoy a magical stroll through the lighted gardens, followed by an indoor holiday concert. Colcannon will perform the melodic songs of Scotland and Ireland on Wednesday, December 8. Pan Jumbies will bring you the lively music of the Caribbean on Thursday, December 9. Tickets are \$15 (\$13 for members at the Arbor Circle level and above).

Tea for Teddy and me

Tea and cakes, savories and sweets will be served to gentle children, their Teddy bears, and Daddy, Mum or Nana at the Teddy
Bear Teas in

occasion.

December thanks to presenting sponsor Robinson Dairy. Little ones aged three to ten look forward to this delightful holiday tradition but seating is limited so please don't tarry. You may reserve your tickets by mail or by phone at 303-370-8062 starting November 1. The dates are Saturday, December 11 and Sunday, December 12 at 11 a.m., 1 p.m. and 3 p.m. Tickets are \$10 for children and \$15 for adults. A variety of circus, magic and puppet performers will enchant and entertain at this special, dress-up

A plan for the future

As the new Director of Horticulture at Denver Botanic Gardens, Rob Proctor is wasting no time in moving forward to advance the style of horticulture that will define Denver Botanic Gardens as the premier setting for viewing beautiful gardens, learning about plants and creating an awareness of our western sense of place. Within weeks of arriving at his new position, several major projects have been undertaken with more to follow.

Visitors are now welcomed by a new garden at the York Street entrance. This eye-catching Mile High Garden exemplifies what gardening is about in the West. It showcases a palette of plants that are beautiful in all seasons and thrive in native, unamended soil. This lively and colorful mixed border sets the stage for the renovation and redesign of other areas within the Gardens.

The shady border beneath the crabapples on the East-West Path will offer inspiration to homeowners who face the challenge of selecting plants that grow well in shaded conditions and flourish in spite of competitive roots. Again, there is an emphasis on plants that create beautiful effects in a garden throughout the year.

A sidewalk cafe atmosphere is planned near the Monet Garden, with an expanded seating area on decks beneath the hackberry trees. The adjacent vegetable garden will assume the character of a French potager, or kitchen garden, complete with topiaries and an abundance of colorful containers.

The current Lilac Garden site will provide the perfect setting to pay homage to Colorado pioneers. This area will be developed into a dryland cottage garden displaying an extensive lilac collection of heirloom varieties and old-fashioned favorites framed by a wealth of plants that play a part in defining the image of Western gardens. Silvery leaves and a



The lush Perennial Walk is a stunning example of Rob Proctor's design influence on the Gardens before he joined as the full-time Director of Horticulture.

predominance of purple, blue and yellow flowers will set the tone as these regional beauties bloom in concert with the lilacs and continue through the seasons.

Another crowd pleaser is sure to be, what Mr. Proctor describes as a 'drop-dead-red-border' that will take center stage north of the water lily pool. Here, the cool essence of water will contrast with the fire of bold, in-your-face color and challenge the conception of what borders should look like.

The new director has enlisted the garden design talents of Marcia Tatroe for the new, east/west pathway shade garden and Tom Peace for the Mile High Garden. Both are highly regarded garden design experts noted for their incredible sense of style and vast experience using plants that perform exceptionally well in our climate. Working alongside the Garden's staff of talented horticulturists, they are lending their expertise in designing gardens that reflect a commitment to Western horticulture.

Mr. Proctor is enthusiastic as he looks forward to the Gardens' fifty year anniversary in 2001. He plans to continue the exploration for plants that will build and expand the existing plant collections, including orchids, bromeliads and other tropical plants, as well as natives and adapted plants from around the world. He welcomes the opportunity to showcase a diversity of horticulture that is visually entertaining, educationally stimulating and that best illustrates the beauty and importance of plants and their impact on life.



Gardens staff recently worked with designer Tom Peace to create the new Mile High Garden.

Tropical Botanica - one year old!



How do Coloradoans remember when it's hurricane season? Last September, plans were in place for receiving plants that had been individually selected for the newly renovated Boettcher Memorial Conservatory. As Hurricane Georges approached South Florida, the plants were whisked by semitruck to Denver Botanic Gardens to avoid possible damage if the hur-

ricane came ashore. Rest assured, the Gardens' horticulturists won't forget when hurricane season is, especially after receiving hundreds of plants in one week as opposed to the anticipated delivery over several weeks.

Construction crews were still laying paths and wiring for electricity in the Conservatory when a 20-foot-tall fishtail palm was hauled into place, and a travelers' tree in a 65-gallon pot waited its turn in the parking lot. Hallways became makeshift greenhouses when existing greenhouses overflowed with flowering trees and exotic perfumes. One by one, holes were dug and plants took their positions in the Tropical Botanica exhibit.

A walk through Tropical Botanica twelve months later tells a story of spectacular growth. The fruits of last year's labor are an abundant display of flowers and fruits. Banana plants have made a dramatic impression with their quick development. Musa x paradisiaca 'Ice Cream' bears a 3-foot-long bunch of ripening bananas and is said to have a very sweet fruit that tastes like ice cream. This banana was only 6 feet tall when planted and now stands at about 20 feet. Other bananas bloomed throughout the year and their fruits will begin ripening this winter.

After a summer of bloom, many other fruits will develop this winter. Among them are: guavas (Psidium guajava 'Barbie Pink'), sweet sop (Annona squamosa), a sugary sweet tasting fruit with aromatic pulp, the spice, black pepper (Piper nigrum) and

papayas (Carica papaya). Naranjilla (Solanum quitoense), from the northern Andes, has bright orange fruit covered in bristly hairs and is used to make juice and preserves. Mangosteen (Garcinia mangostana) is considered by many to be the finest tasting fruit of the tropics. Chocolate (Theobroma cacao), has flowered and a multitude of the developing pods can now be seen on the tree. Once these pods ripen, the inner seeds are fermented then roasted to produce cacao, which is used in many delectable foods.

Flowers that will continue to add color through the colder months include hanging heliconia (Heliconia collinsiana) and Heliconia chartacea 'Sexy Pink' with colorful, pendant flowers in a wonderful shade of pink. The flowering vine, pelican flower (Aristolochia gigantea) also known as Dutchman's pipe produces oddly shaped maroon flowers. Fishtail palm (Caryota mitis) has also flowered and looks, to quote one visitor, like a 'flowering mop.' Tibouchina granulosa produces a vibrant purple flower spike with orange centers. Visit Tropical Botanica and experience the diversity of flowers and fruit on display.

Julie McIntyre, Horticulturist

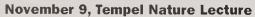


November

SUNDAY

MONDAY

TUESDAY



Join Carol Dawson, the Gardens' Director of Research, at 7 p.m. to learn about the Gardens' efforts to reduce the loss of rare native plants and their habitats. She will share beautiful photographs of Colorado's high elevation sagebrush steppes and the rare plants she studies. Please call 303-370-8020 to register. Walk-in registrations the night of the lecture are also welcome. The cost is \$8 for members and \$12 for nonmembers.

November 12 & 13, Holiday Gift and Garden Market

Shop Denver Botanic Gardens' 35th annual Holiday Gift and Garden Market and find a wonderful selection of unique items created by members of the Gardens' volunteer groups and 45 outside product vendors. The Holiday Gift and Garden Market will be held in Mitchell Hall on Friday and Saturday, November 12 and 13 from 9 a.m. to 5 p.m. and admission is free. As always, members receive a 10 percent discount on their purchases. All proceeds will be used to develop and enhance the outdoor gardens at Denver Botanic Gardens.

November 20, One-Year Anniversary Celebration of Tropical Botanica

Escape the cold and explore the immense growth that Tropical Botanica has experienced over the last year. Guided tours will be led at 11 a.m. and 1 p.m. Tropical festivities, including a visit by the Gabriel Foundation' parrots will take place from 11 a.m. to 3 p.m. Please meet in the lobby for tours. Call 303-380-8187 for more information.

November 25, Closed for Thanksgiving The Gardens will be closed all day.

Volunteers Needed to Greet Visitors and Answer Questions

Join the team at Denver Botanic Gardens! There are a few open positions for volunteers at the Information Desk. Hours range from 10 a.m. to 1 p.m. Meet new people and learn about the Gardens at the same time! For more information call Jo Estill at 303-370-8191.



8

Herbs for Jars and Jams*

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2

Tempel Wildflower lectu Cactus Society meeting Intermediate Bonsai: Olive-The 1999 Tempel Nature I

Bonsai Society worksho

14

Daylily Society meeting

15

16

Bonsai Society meeting
Field Sketching in the
Tropical Conservatory —
Field Sketching in the
Tropical Conservatory —

21

28

Begonia Society meeting

22

Ultra Violet Club meeting

23

KEY FOR CALENDAR

Bold blue type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society events

Regular black type = Classes (CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION: Gardens events 303.370.8187 Plant Society events 303.370.8097 29

30

Holiday Concerts

Circle level members and above). Pan Jumbies will bring you the lively music of the Caribbean on Thursday, December 9. Tickets are \$15 (\$13 for Arbor which begin at 7 p.m. Colcannon will perform the melodic songs of Scotland and Ireland on Wednesday, December 8. The most enjoyable way to experience Blossoms of Light is to combine it with one or both of the Holiday Concerts

Teddy Bear Teas — Presenting Sponsor Robinson Dairy

magic and puppet performers along with special teas and treats, has been a favorite with guests for many years a holiday tea party at the beautiful Botanic Gardens. This delightful holiday tradition, which features a variety of circus, Tickets are \$10 for children and \$15 for adults (no member discount for Teddy Bear Teas). Little ones love to dress up and take their favorite doll or Teddy Bear, along with the special grown-ups in their lives to

Saturday, December 11, 11 a.m.
Saturday, December 11, 1 & 3 p.m.
Sunday, December 12, 11 a.m. & 1 p.m.
Sunday, December 12, 3 p.m.

Jim Jackson, Firehouse Circus James Loshbaugh, Magic & Puppet Show Brad Montgomery, Magician Merry-Andrew Afoot, A Christmas Smooch

Registration Form

By Mail: Please send the below form to: Denver Botanic Gardens, Special Events, 909 York Street, Denver, CO 80206.

Thanksgiving Day, November 25. Box office hours are Monday through Friday, 9 a.m. to 5 p.m. Please note that the box office will be closed on Walk-in: Beginning November 1, you may purchase tickets at the box office at the entrance gate, 1005 York Street.

By Phone: Beginning November 1, purchase tickets by calling 303-370-8063, Monday through Friday, 9 a.m. to 5 p.m. All credit card charges are subject to a \$2 per ticket handling fee.

To qualify for a reduced price for concerts, you must be a current Gardens' member at the Arbor Circle level or above,

Denver Botanic Gardens

Blossoms of Light



Presenting Sponsor

Open every evening, December 4 through January 2, 6 to 9 p.m.

dragonflies and the largest decorated Christmas tree in Denver. Inside, the lobby is decorated with plant displays and a Step back in time to the turn of last century and spend an old fashioned holiday at Denver Botanic Gardens' annual Blossoms of Light holiday celebration. Bundle up for an invigorating walk through a winter wonderland where more deluxe model train display characteristic of the 1890's. The Gardens will also echo with the sounds and movements of than a quarter-of-a-million twinkling lights illuminate animated scenes of fluttering butterflies, leaping frogs, darting entertainers, carolers, bell ringers, dancers and other musical groups who perform each evening.

Seasonal refreshments including hot chocolate, hot cider and brownies will be available for sale to help take off the winter chill. The Gift Shop, stocked with holiday cards, ornaments and unique gifts, is open every evening until 8:45 p.m. and members receive a 10% discount on all purchases.

Admission to Blossoms of Light

Adults \$6, Seniors (65 and older) and youth (6 to 15 years) \$4, Children 5 years and younger FREE Adult members \$4, Seniors and youth members \$2

When you visit Blossoms of Light, you will receive a \$2 discount coupon toward purchase of a ticket to Wildlights at the Zoo.















Concert		# Tickets	3	Member Price	Price	Total
Colcannon	Wed. Dec. 8		×	\$13	\$15	
Pan Jumbies	Thurs. Dec. 9		×	\$13	\$15	
Tea Date		*Ad.:+ / Child			Child Brico	
Sat. Dec. 11	11 a.m.	_	×	\$15	\$10	
Sat. Dec. 11	1 p.m.	/	×	\$15	\$10	
Sat. Dec. 11	3 p.m.	/	×	\$15	\$10	
Sun. Dec. 12	11 a.m.		×	\$15	\$10	
Sun. Dec. 12	1 p.m.		×	\$15	\$10	
Sun. Dec. 12	3 p.m.		×	\$15	\$10	
Credit Card fee		per ticket	×	\$2		
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Herald the season

The Gardens' holiday season will start off with the annual members' preview of the "best light show in town," Wednesday, December 1 and Thursday, December 2 from 6:30 to 8:30 p.m. Tickets are \$7 per person (children 5 and younger are free) and include musical entertainment, holiday desserts, hot chocolate and gourmet coffees, balloon sculptures, children's craft projects and storytelling.

Be the first to see more than a quarter-of-a-million lights throughout the Gardens, the largest Christmas tree in Denver as well as indoor decorations including topiaries and a deluxe model train display. Reservations (with Visa or Master Card) will be accepted beginning November 1 by calling 303-370-8063.



DBG TRAVEL ADVENTURES

Hawaii, A Three-Island Odyssey

Hiking, Sea Kayaking, Snorkeling & Whale Watching March 1 to 11, 2000

Referred to by Mark Twain as "the loveliest fleet of islands that lie anchored in any ocean," these lush volcanic gems are cut by spectacular gorges and valleys, and fringed by unspoiled beaches and coral reefs. As the world's most isolated archipelago, 90% of the fascinating flora and fauna



from Hawaii exists nowhere else on earth. On Kauai "The Garden Isle," tour participants can hike through unique vegetation of Norfolk pine, swamp mahogany, guava and orchids. Hiking the famous Na Pali Coast and Waimea Canyon will be breath-taking as will sea kayaking the secret shores of Kipu Kai. Hiking in Haleakala National Park on Maui, "The Valley Isle," offers the opportunity to search for the rare silversword plant, the nene goose (Hawaii's state bird) and other endemic plants and wildlife. One afternoon will be spent watching the humpback migration. "The Big Island" offers a kaleidoscope of diverse ecosystems to be explored, including tropical rain forests, snowcapped mountains, deserts, beaches and of course, volcanoes.

The price of this 11-day tour is \$2395 per person and includes: lodging (bed and breakfasts), most meals, ground transportation, activities, instruction, inter-island airfare (once trip begins) and professional naturalist guiding services. A \$400 deposit is required with final payment due by December 31. The tour is limited to 13 participants. This trip is rated "moderate." Hikes, four to six miles over some rough terrain, and sea kayaking, require moderate physical fitness. Call Pam Rathke, Denver Botanic Gardens' Travel Coordinator at 303-370-8051 for more information.

Memberships for the holidays — for everyone!

A membership to Denver Botanic Gardens can be appreciated all year long! As a year-end bonus, all new memberships sold at the \$55 level or higher, will be discounted \$5 off the price of the membership. With a new gift membership at any level, Denver Botanic Gardens will also provide a \$5 Gift Shop certificate redeemable through January 31, 2000. Both offers are available now, through January 3, 2000. Please call 303-370-8029 with questions or to purchase a membership.



Free family pass for Blossoms of Light coming in December

Denver Botanic Gardens will offer members a free family pass for one visit to Blossoms of Light (open every evening December 4 through January 2). The pass will admit two adults and two children into the Gardens. Please look for the pass inside the December issue of *Green Thumb News* and bring the pass and your membership card to be admitted.

Dear Friend of Denver Botanic Gardens:

Denver Botanic Gardens is looking forward to the new century with great confidence. Building upon our strong reputation, exciting plans are already underway for making our Gardens world-class and a leader in all our major programs: horticulture. education, and research. You can be a part of this excitement, and help us reach our goals through a special year-end contribution to the Gardens.

Your past support has allowed us to begin the necessary changes to become a world-class institution by hiring staff such as Rob Proctor, an outstanding internationally-known horticulturist and author, to lead our horticulture team into the next century. Rob will bring the expertise needed to raise our standards and enhance our plant collections, and has a myriad of programs that can help us reach our goals. But, the goals can not be reached without your help.

Expanding our programs in horticulture, education and research are at the top of our list. We want to enhance the Gardens' role significantly in providing an understanding of plants through our educational programs and horticultural collections. We also are continuing to develop our research program, which is already playing a key role in saving plants in Colorado and neighboring states. Working in the Rocky Mountain National Park and other areas, Denver Botanic Gardens will continue this vital work plus provide land managers, such as the National Park Service, with strategic ways to prevent the loss of native species and control invasive alien plants.

These are just a few of the program enhancements we have planned. There are many more, which you will be hearing about in the coming months. The overall result will be a garden that is even more beautiful, and provides innovative programs in education and research. With your help, Denver Botanic Gardens will be an institution of real significance and influence. We have a great start, and together we will make Denver Botanic Gardens a world-class institution!

> Warm Regards, Brinsley Burbidge, Ph.D., Executive Director

P.S. Give generously with your special year-end gift. You will, with justification, be proud of the Gardens you are supporting!

Please return this form to Denver Bota	anic Garde	ns, Annual Fund. 909 Yo	ork St.,	Denver, C	CO 80206
☐ Yes, I want be a part of making De	nver Botan	ic Gardens a world-class	institu	tion with	:he
following tax-deductible gift! 🗖 \$50	□ \$75	□ \$100 □ Other \$_		_	
I want my gift to help develop: 🗖 Hor	rticulture 🕽	☐ Education ☐ Research	o 🖵 Ot	her	
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My payment is enclosed:	☐ Chec	k (made payable to DBG	;)	□ Visa	Ū.MC
Account Number		Е	xpiratio	on Date	
Signature					

Memorials and Tributes

In memory of Mary Ellen Owen

Mr. and Mrs. John L. Tyler

Mr. and Mrs. Bill McClearn

Mr. Ira E. Tanner, Jr.

Mr. and Mrs. Richard A. Kirk

Mr. and Mrs. Patrick M. Westfeldt

Mr. and Mrs. William B. Chenoweth

Mr. and Mrs. Mackintosh Brown

Mr. and Mrs. James E. Strain

Mr. and Mrs. Michael D. Trevitnick

Mr. and Mrs. James M. Idema, Jr.

Mr. and Mrs. Robert J. Shaw

Mr. and Mrs. George Fischer

Mr. and Mrs. Louis P. Bansbach, III Mr. and Mrs. Jerome R. Strickland

Mr. and Mrs. Lloyd Steinmann

Ms. Jeanne Thomas Moore

Mr. and Mrs. Ted Washburne

Mr. and Mrs. L. Clark Tierney, Jr.

Mr. and Mrs. Frank W. VanDeWater

Ms. Rosemarie P. Murane

Mr. Edward Murane

G. D. Fader

Mr. and Mrs. John O. Hedden

Mr. and Mrs. J. Landis Martin

Ms. Nancy Mann Sanson

Mr. and Mrs. Walter A. Steele

Mr. and Mrs. Tor Westgaard

Mr. and Mrs. Walter V. Holt

In memory of Nan Batten

Ms. Gail Pfenninger

In memory of Nicholas R. Petry

Mr. and Mrs. Ib Falk Jorgensen Ms. Ann B. Waterman

In memory of W. Schilling

Ms. Phyllis VanEngen

In memory of David Drage

Mr. and Mrs. Dennis Rice

Ms. Polly N. Whiteside

Mr. and Mrs. Lynn C. Brownson

In memory of Akiye Nakamura

Ms. Marjorie Hornbein

Mr. and Mrs. Richard L. Grier

Berenbaum, Weinshienk & Eason P.C.

Ms. Rosemary McCool

Crosee, Inc.

Mr. and Mrs. Robert Karbel

Mr. and Mrs. Michael D. Berk

Ms. Elizabeth Hilliker

Ms. Nancy N. Orcutt

Ms. Rosemarie P. Murane

Edward Murane

In memory of Ruth Tempel

Ms. Margaret Wallace

In memory of Elizabeth Allen

Ms. Judith A. Waldren

In memory of Margaret Bedford

Ms. Judith A. Waldren

In memory of Harry Nagata

Ms. Judith A. Waldren

In memory of Mary Belle Grant

Mr. and Mrs. John C. Mitchell, II



Banana bonanza

In the tropics, bananas are a very important crop. Bananas rate behind only grapes, apples and citrus fruits in worldwide fruit sales. Banana plants may look like trees, but they are really herbaceous plants just like corn or irises. After an individual stalk produces fruit, it dies. While one stalk is dying back, other stalks will grow up around it and replace it, so that the plant lives on.

The original, wild banana plant comes from southeast Asia and the wild form has inedible fruit. The edible fruit came about through hybridization. These hybrids are sterile, but produce the large wonderful fruit.

Bananas and plantains are used in many different cultures. People eat the ripe fruit, bake, puree, can, boil it into a thick honey-like syrup or make it into flour for various uses. The fruit, foliage and stems can be used for animal feed. All parts of the plant can also be used medicinally, including the sap. In addition to providing a feast for the stomach, ornamental bananas provide a veritable feast for the eyes. A banana leaf immediately evokes images of the tropics. The leaves come in great a variety of colors and sizes and a huge collection of different banana plants can be viewed in Tropical Botanica all year long.

Books from the Helen Fowler Library used for this article.

Lessard, William O. The Complete Book of Bananas. [S.I.]: W.O. Lessard, 1992.
SB 379 .B2 L37 1992
Morton, Julia F. Fruits of Warm Climates.
Winterville, N.C.: Creative Resource Systems, 1987. SB 459 .M5 1987
Purseglove, J.W. Tropical Crops:
Monocotyledons. London: Longman, 1972.
SB 111 .P877 1975
Robinson, J.C. Bananas and Plantains. Oxon: CAB International, 1996. SB 379 .B2 R63

Horticultural therapy as a new career path

How does the Denver Botanic Gardens Center for Horticultural Therapy Studies measure the success of its educational certificate program? One standard of measure is the successful employment of students in the field of Horticultural Therapy (HT). With the first group of students completing certificate courses in HT this year, several students have reported finding new and exciting jobs in the field.

One such student is Donna Spring from Burnt Hills, New York. Working as a part-time activity coordinator/horticultural therapist at the Unlimited Garden in Saratoga County, New York, she brings horticultural therapy to people of all ages and abilities. Her job began as an internship in conjunction with classes that she took at the Center for Horticultural Therapy Studies. After demonstrating her skill, she was offered a full-time job.

When out in the garden with clients, Spring helps children and seniors develop socialization skills while planting, watering and harvesting. She also works on prevocational skills with some clients, such as stroke patients, so that they may one day find work. Spring measures her own success by what happens to the people who come for therapy in the garden. "We have children coming every week who were completely non-verbal and now after several weeks in the garden, they are talking," she said. Such transformations take place through Spring's application of techniques learned in HT classes at Denver Botanic Gardens.

As more and more students get professional training in HT, we expect to see an expanding number of horticultural therapy programs that contribute to the mental and physical health of their clients. For more information on the horticultural therapy program at Denver Botanic Gardens, contact Christine Kramer at 303-370-8190 or e-mail at kramerc@botanicgardens.org.

Christine Kramer, Horticultural Therapy Assistant



Donna Spring participating in a role-play exercise during the class Introduction to Horticultural Therapy.

1996

Youth Garden Symposium

The American Horticultural Society's 1999 National Youth Garden Symposium, which was hosted by Denver Botanic Gardens from July 22 through July 24, is now nothing more than a memory. Although the symposium is long over, its ideas and visions will live on in programs that began as a "seed" of an idea, planted in the fertile minds of the symposium attendees and are now taking root, growing and flourishing in youth garden programs throughout the country.



Youth gardeners in the Butterfly Hope youth gardening program work on a gardening project at Cheltenham Elementary.

One such program that will be implementing ideas gleaned from the symposium is Butterfly Hope in Denver. Cinda Roth, the Director of Butterfly Hope, was excited about the opportunity to network with other people involved in youth garden programs which combine horticulture, science and art.

For Cinda, one of the most exciting programs was the Junior Master Gardener program and partnership. In 1999, Butterfly Hope had a total of eleven Master Gardeners who worked with the children in

her program on a daily basis. The children developed such an affinity with these "Master Gardeners" that in their thank-you letters, they expressed that they, too, wanted to become "Master Gardeners." Cinda is anxious to help start them on their way by helping them become "Junior Master Gardeners" through the Junior Master Gardener Program.

Another new hands-on project developed from the TWIGS program by Marilyn Johns is the construction of a zip-lock greenhouse by planting seeds in a zip-lock bag. Cinda planted her zip-lock greenhouse and passed it (and the idea) on to Suzanne Connolly, a science teacher at Cheltenham Elementary. Butterfly Hope is planning on implementing this new project in their year 2000 program.

Of course, all things must come to an end and so, too, did the symposium. But the end of the symposium was just the beginning of new relationships. Imagine Cinda's surprise when she received a wonderful letter and "gift" from Chrystal Huff, the Public Programs Coordinator for Hershey Gardens. Chrystal was among those attendees who visited Butterfly Hope as one of the youth garden tour sites for the symposium. Chrystal was so impressed with Butterfly Hope's program that she wrote to Cinda and sent her a container of cocoa mulch. This is a by-product from making chocolate which Hershey Garden uses to mulch all their gardens. For Cinda, this was a sweet ending to an inspiring symposium.

The Gardens and the millennium bug?

You might not think of Denver
Botanic Gardens as a place with a lot of computer key-board artists whose work could be seri-

ously jeopardized at midnight on December 31, 1999, and you would be right. You would be right only because the Gardens has, for the past 18 months, tracked down and replaced all computer systems that could have been affected by the much-anticipated pest. Chuck Robinson, network administrator, has led the effort and spent many months replacing or upgrading workstations and network servers, and identifying potentially troublesome software.

Most of the concerns were related to administrative tasks and were quickly identified and methodically corrected. With other large databases, it has taken more time and effort to identify and correct the potential problems. Maintenance systems that might have had trouble have been examined and fixed. Essential power, water supply and drainage systems have always been protected as well as possible because the Gardens are in Denver... where tornadoes, thunderstorms and blizzards could wreak havoc at any time.

The Gardens should be safe during those beautiful days in January when the plants are resting quietly in the bright, chilly air and the elegant bone structure of the gardens is on display. For those not-so-beautiful days, remember it's always summer in Tropical Botanica and the wish books in the Library can be viewed at any time.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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Tree-mendous Early-bird Order Form

Enclosed is \$for th	e following:		
Tree Type	Quantity	Size	Price
Wreath Size	Quantity	Price	
Name			
Address			
City	State	Zip	
Day Phone	Eve	ning Phone	
Member of Denver Botanic Garde	ens? 🗆 Yes 🗅 No		
Member ID #	(On t	op line of newsletter	r address label)
🗅 Check 🗅 Visa 🗅 MasterCard			
#		Exp. [Date
Signature			

Mail to Chatfield Arboretum, 8500 Deer Creek Canyon Road, Littleton, CO 80128. Or fax credit card order to 303-973-1979. To be eligible for an early-bird discount, this order must be postmarked by November 17. Make checks payable to Chatfield Arboretum. For information, call 303-973-3705. A confirmation will be sent upon receipt of your order. Trees and wreaths will be available for pick up at the Arboretum on December 4 from 10 a.m. to 4 p.m.



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4'	\$27
5'	\$32
6'	\$36



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26"	\$26

Green Thumb News

www.botanicgardens.org

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Editor: Julie Behrens Designer: Julie Rudofsky

Hours

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

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Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Illustration by Susan T. Fisher.

Green Thumb News December 1999



AN OLD-FA/FIONED HOLIDAY! plossoms of Light, December 4 to January 2

over Story on page 3



From the Top

News from the Executive Director

We are coming to the close of a phenomenal year for the Gardens. Our visitor attendance and membership have reached all-time highs. The immensely successful Dave Rogers' Big Bugs exhibition and the opening of the Monet Garden contributed significantly to both of these successes. The weather has also served us well.

At Chatfield Arboretum we hosted our first Deer Creek Discovery Camp, a weeklong adventure for seven- to 11-year-olds generously funded by the W. M. B. Berger Foundation. Chatfield also held one of the best Pumpkin Festivals ever, which attracted more than 15,000 visitors vying for 220,000 pounds. of pumpkins.

We've also made great progress regarding the development of several new gardens. Under the direction of new Horticulture Director, Rob Proctor, several gardens have been redesigned and planted and now await the warm, spring temperatures and moisture. These gardens include the Mile High Garden along York Street, a 320-foot-long shade border northwest of the amphitheater, a dryland cottage garden displaying heir-loom varieties of lilacs and Colorado hardy perennials and the stunning Drop Dead Red Border just north of the Monet Garden.

The annual Blossoms of Light event kicks off this month and, I hope, will attract record attendance. As we are rapidly nearing the turn of the century, we will offer visitors the chance to enjoy an old-fashioned holiday — with touches from the turn of last century.

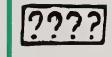
So, what does the year 2000 have in store for us that will make the Gardens even more exciting and allow for another phenomenal year? We have some great events planned for your enjoyment and the concerts will feature some truly outstanding artists. However, for me, the greatest excitement will come from the changes we are making to the gardens themselves. This will, to quote Rob Proctor, "lead to a renewed focus on the exciting spectrum of Western horticulture, leading to a garden that truly befits Colorado." I can't wait.

Let me take this opportunity to wish everyone a very happy holiday season from all of the staff, volunteers and board at the Gardens and to thank you for your loyal support over the past year.

Brinsley Burbidge, Executive Director



Congratulations to our November Employee of the Month, Horticulturist, Dan Johnson. Over the last two years, Dan has transformed the Environmental Gardens into a showcase of native-plant horticulture. He exemplifies professionalism, teamwork and the forward-looking spirit of the Gardens' Horticulture department.



Plant Puzzler

Q: What tree holds the world record for the tallest, living tree?

This month's Plant Puzzler was contributed by Mark Humble, Irrigation Specialist in the Horticulture Department.

A: A coast redwood (Sequoia sempervirens) in California has been verified at 367 feet, an amazing 62 feet taller than the Statue of Liberty.





A SheaHomes | SIMEON Community

Chatfield Arboretum has new neighbors. Located on the south border, TrailMark at Chatfield, a Shea Homes -Simeon community, is now under construction. Long before any new homes were built, however, serious efforts were made to protect the water quality of Chatfield and minimize the development's impact on local wildlife. The result is a lengthy legal agreement that outlines a multifaceted program of strict erosion control; storm water drainage improvements; the construction and operation of an elaborate storm water diversion system; a collaborative education program; a long-term program to monitor the quality of surface and storm water; and the designation of landscape buffers and wildlife corridors.

After several months of construction, the Chatfield Arboretum staff is happy to report that working with TrailMark has proven to be both a very positive and productive experience. Regular meetings between the two organizations are held and suggestions are well-received and promptly implemented. Recently, TrailMark at Chatfield further demonstrated its support by generously donating \$15,000 to Denver Botanic Gardens as the presenting sponsor of the 11th Annual Pumpkin Festival. Although it will be several years before all of the homes are built and occupied, Chatfield Arboretum staff looks forward to a long and mutually satisfying relationship as it welcomes the new residents of TrailMark at Chatfield.

Cover Story: BLOSSOMS OF LIGHT

As we approach the turn of the century, you are invited to step back in time and experience an old-fashioned holiday at the Gardens the way it might have looked in 1899. It's that magical time of year when the Gardens sparkle with more than a quarter-million twinkling lights. Come stroll through an enchanting winter wonderland, see Denver's tallest, living Christmas tree and enjoy nightly entertainment featuring carolers, choirs and bell ringers.

After an exhilarating exploration of this holiday landscape, venture inside for a warm mug of apple cider, hot chocolate, coffee or baked treats and enjoy the balmy atmosphere of the tropics.





Lower left: A collection of hand-crafted Simpich dolls in turn-of-the-century attire will be on display in the Lobby. Above: The Dickens Carolers will bring old-fashioned cheer to the Gardens during the opening night of Blossoms of Light, December 4.

Tropical Botanica takes on a mystical mood when the lush flowers and foliage are transformed by exotic colored flood lighting. Enjoy a collection of the worldrenowned, handmade Simpich dolls (made in Old Colorado City) in late 1890s costume and a vintage model train as it winds its way along an old-time indoor scene.

The Gift Shop is brimming with beautiful gifts, books, cards and ornaments. Be sure to look for the Gardens' 2000 calendar that features twelve stunning photographs taken by Jim Havey. It's the perfect gift. You can shop every evening until 8:45 p.m. and members receive a 10 percent discount on all purchases.

Blossoms of Light is a favorite family outing for the young, old and everyone in between. This Denver tradition is a wonderful way to entertain your visitors during the holiday season. When you visit Blossoms of Light, you will also receive a \$2 discount coupon toward purchase of a ticket to Wildlights at the Zoo.



1999

Present this coupon to cashier with current membership card to admit two adults and two children to any evening of Blossoms of Light, December 4 through January 2, 6 to 9 p.m.

Open every evening, December 4 through January 2, from 6 to 9 p.m. Members: \$4 adults, \$2 seniors (65 and older) and youth (6-15) Nonmembers: \$6 adults, \$4 seniors and youth Free for children 5 years and younger Tickets are available at the gatehouse.

Blossoms of Light is presented by Public Service Company of Colorado and sponsored by The Denver Post, Robinson Dairy, Loews Giorgio Hotel, Wells Fargo and the Scientific and Cultural Facilities District.

Collecting for the future

In 1978, a commitment was made to strengthen the indoor plant collections at Denver Botanic Gardens. The tropical plant collections, especially the bromeliad and orchid collections, were a focus of this commitment.

Until 1978, the bromeliad and orchid collections contained approximately 500 plants that were housed together in a 30'x30' greenhouse. These small, but respected, collections included several unusual species of bromeliads, including *Ananas comosus variegata*, the variegated pineapple plant, and several unusual field collected *Tillandsias*, as well as *Stanhopea* orchids from tropical Mexico.

In the spring of 1978, Walter Smith, an avid collector of bromeliads, passed away. Mr. Smith, who lived in Louisiana with his wife Miriam, had amassed a collection of 2,000 plants and specialized in variegated bromeliads. After his passing, Mrs. Smith began a search for a new home for this notable collection. Paul



Aechmea chantinii cv. 'Samarai' is an outstanding representative of the Gardens' collection of bromeliads.



Horticulturist Julie McIntyre watering one of the many bromeliads in Tropical Botanica.

Earle of the High Country Bromeliad Society and a bromeliad enthusiast, heard of the collection and contacted Mrs. Smith. After many weeks of discussion between Denver Botanic Gardens and Mrs. Smith, it was agreed that the Gardens would receive the collection. This exciting step forward would be a building block of what has become one of the finest bromeliad collections in the world.

After the plants arrived at the Gardens, the collection was housed in one of the production greenhouses. A capital fund drive to raise money for future projects was under way, and a proposal for the construction of a growingdisplay greenhouse for orchids and bromeliads to be located at the west end of the Conservatory was incorporated and approved. In June of 1981 the new facility, known as Marnie's Pavilion, was dedicated. Since this time the bromeliad collection has gone through much refinement and is considered one of the best species collections in the world. It consists of approximately 1,500 plants and includes many very rare specimens.

Currently, Denver Botanic Gardens is placing an even greater focus on both the bromeliad and orchid collections with the expectation that they will be two of several, well-respected "signature" collections associated with the Gardens. Indeed, an exciting time is ahead as plans for enhancing both collections proceed. The bromeliad collection is being moved to greenhouse #3, a 30'x90' greenhouse with three individual compartments. Each compartment is controlled separately providing the optimum growing conditions needed to bring out the best color, form and bloom for these plants. The collection will be displayed to the public in Tropical Botanica, Marnie's Pavilion and in container gardens around the grounds.

In order to enhance the orchid collection, Gardens Horticulturist Nick Snakenberg has assumed the full-time responsibility of Orchid Curator. His plans for the future of the orchid collection will be further discussed in the March issue of *Green Thumb News*.

Gary Davis, Bromeliad Curator

Look beyond the lights



Blossoms of Light celebrates the beauty of plants through the holiday season. The displays are designed to accent the form of plants as lights trace the elegant branching patterns and varying architecture of trees and shrubs, or are arranged to resemble their flowers or fruits. Last year, the towering columns of ornamental grasses glowed through the night from reflective spotlights strategically placed to capture their majestic form. Adults and children alike delight in the whimsy of a frog leaping across a pond or fish swimming a stream. Fiber optic lights will add impressionist enchantment to the Monet Garden in its first

season of Blossoms of Light, while the exotic beauty of Tropical Botanica will bathe in subtle illumination.

For nearly a decade, the annual display of Blossoms of Light has brought a holiday glow to the Gardens. It has evolved from lighting only a few walkways and the front entry, to state-of-the-art effects that sparkle throughout. The display continues to grow and over the past five years has become an increasingly creative effort that depends on the time and talents of teamwork.

Horticulturists and Operations staff, assisted by volunteers, are responsible for the impressive task of inventory, maintenance, installation and removal of more than 30 miles of light strands. Last year, an additional 20 miles of fiber optic lights were added, providing new opportunities for enhancing the natural beauty of Denver Botanic Gardens.

Planning the design begins in the summer and the installation of this incredible display gets under way in the fall. Close attention to detail and care in installation are essential to avoid harming the plants. Wrapping wires too tightly or using lights that are heavy can wreak havoc with plants. Excessive heat from too many lights may also harm foliage. All of these precautions are given careful consideration in the planning and design phase.

Volunteers play an increasingly important role in this very labor-intensive endeavor. Their efforts, along with those of the Gardens' staff, create a winter wonderland with hundreds of thousands of lights that magically transform the Gardens' land-scape for holiday enjoyment!

Mark Humble, Blossoms of Light Coordinator and Irrigation Specialist



The flowers of Curcuma longa gleam like iridescent torches.

Plant Portrait

Curcuma longa

Known commonly as turmeric, *Curcuma longa* is one of the most beautiful members of the ginger family, Zingiberaceae. The roots of this plant consist of thick, fleshy rhizomes and tubers. From these branching, lumpy bases grow clusters of paddle-shaped leaves. Emerging from the center of the leaf clusters, conelike flower heads consist of soft-colored bracts that protect pale yellow flowers. The uppermost bracts are a pinkish-white and the lower bracts are greenish in hue, creating an infusion of soft color.

Not only beautiful, turmeric is also of economic importance. When dried and ground, the rhizomes are an ingredient of curry powder, as well as a color source for rice and other foods. The colorful powder is used to dye cloth and, when impregnated into paper, it serves as a chemical indicator of acidity and alkalinity. The natural distribution of *Curcuma longa* ranges from India and Malaya to Australia. It is commonly grown in Hawaii and throughout the tropics and may be viewed in Tropical Botanica.

Gary Davis, Greenhouse Supervisor

December

December 4, Blossoms of Light Opening Ceremonies

Come one, come all and enjoy the opening night festivities for the 1999 Blossoms of Light. Experience old-fashioned entertainment from the Dickens carolers and several other musical groups, vintage train and doll displays, as well as holiday foods, children's activities and the lighting of Denver's tallest living Christmas tree at 5:45 p.m. Gates are open from 5:15 p.m. to 9 p.m. and admission for members is \$4 for adults, \$2 for seniors (65 and older) and youth (6-15) and free for children 5 years and younger. Please call 303-370-8187 for more information.

December 4, Volunteer Appreciation Reception

A reception recognizing volunteers will be held on December 4th to thank volunteers for their many contributions towards another successful year at the Gardens. The reception begins at 4 p.m. in Mitchell Hall and is followed by the opening ceremonies of Blossoms of Light. Family members of volunteers are welcome. Reservations may be made by calling 303-370-8049.

December 8 and 9, Holiday Concerts

Holiday concerts are a long-time tradition at the Gardens. On Wednesday, December 8, Colcannon will share the lovely music of Scotland and Ireland and on Thursday, December 9, the Pan Jumbies will liven things up with Caribbean rhythms. The music begins at 7 p.m. but guests are welcome to come early to first enjoy the Blossoms of Light display. Tickets are \$15 (\$13 for Arbor Circle level members and above). Please call 303-370-8021 for tickets and information.

December 11 and 12, Teddy Bear Teas

Children and their favorite doll or teddy bear are invited for tea and cakes. On Saturday, December 11, entertainment will be provided by Jim Jackson and the Firehouse Circus at 11 a.m. and James Loshbaugh and the Magic and Puppet Show will perform at 1 and 3 p.m. On Sunday the 12th, Brad Montgomery will perform his magic tricks at 11 a.m. and 1 p.m. and Merry-Andrew Afoot will entertain with A Christmas Smooch at 3 p.m. Please call 303-370-8091 for tickets and information.



6

Ye Wanton Wenches Thomas Jefferson High School Choir John F. Kennedy High School Choir West High School Choir

.

Last Note Singers Colorado Academy Choir

Bonsai Society meeting Colorado Native Plant Society meeting

12

5

Teddy Bear Teas

East High School Choir State of the Art Dancers

Smithtonians Handbell Ensemble

13

Montclair Academy Choir Jerry Barlow, Guitar 14

North High School Choir North Land Carolers

19

Note-ables, Mandolins & Guitar

20

Colorado Productions, Youth Performance Choir 21

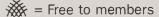
Saxon Woods, Musical Gre

KEY FOR CALENDAR

Bold green type = Gardens events (V) = Volunteers are needed. Call 303.370.8049.

Bold black type = Plant Society eventsRegular black type = Classes

(CH) = Classes at Chatfield Arboretum



FOR MORE INFORMATION: Gardens events 303.370.8187

Plant Society events 303.370.8097

26

Upsidasium, Musical Group

27

Ron Ivory, Rhythm and Blues

28

Denver Concert Band

Denver Botanic Gardens Planned Giving Program

Do You Know These Acronyms?

the words for each acronym and match it with the correct description at the right. donors about the variety of ways gifts can be made to support the Gardens' mission. Following are four acronyms, each representing a different gift plan. See if you can identify One of Denver Botanic Gardens' goals is to provide useful information to friends and

Acronyms

Descriptions

2. CGA

1. CRUT

A A charitable trust that provides you, or someone else, with a fixed amount of income each year during the duration of the trust with an ultimate gift to Denver Botanic Gardens.

3. CLT

- 3. A charitable trust that provides income to the Gardens for a period of years after which the remainder of the trust is given back to you or another person you choose.
- 4. CRAT

- A charitable trust that provides a variable amount of income for one or more lives (or a specified number of years) with all, or a portion of the remainder of the trust, becoming a gift to the Gardens.
- D. A contractual agreement between the Gardens and you, and perhaps another, whereby Denver Botanic Gardens agrees to pay you a specific income payment every year for the rost of your life after which the remainder of your



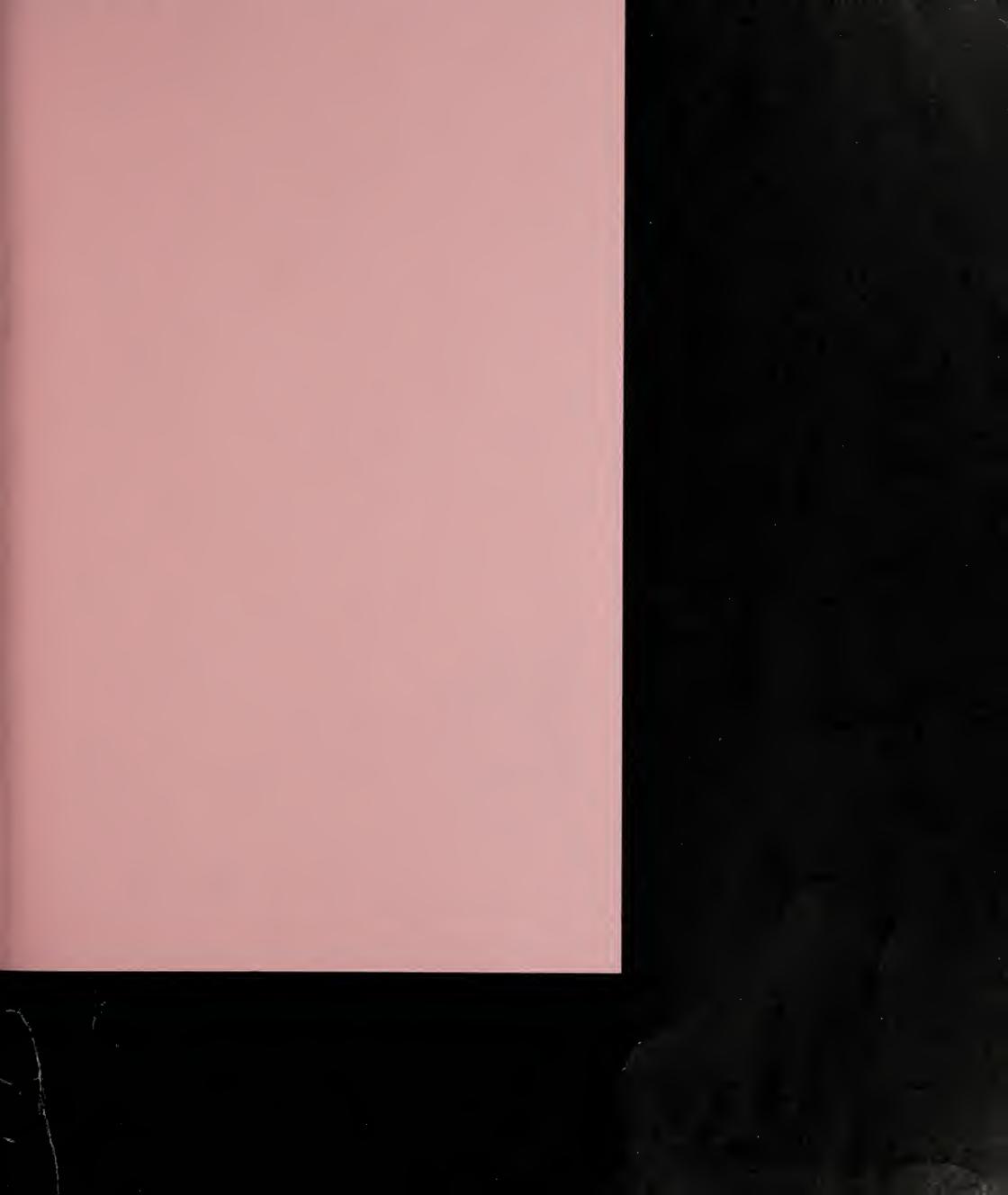
More than a Beautiful Garden

Denver Botanic Gardens

Photos by Jim Havey

Only \$9.95!





calendar features stunning, full-color images by professional photographer Jim Havey and also pro-Gardens, Attn: Mary Lopez, 909 York Street, Denver, CO 80206. Or, call 303-370-8076 with questions. mail. Please return this order form with a check or a Visa or MasterCard number, to Denver Botanic delight is a perfect holiday gift for everyone on your list and is available now in the Gift Shop or by vides year long gardening tips and background on each featured garden. Priced at \$9.95, this visual How would you like to enjoy the beauty of the Gardens every day for the next year? The Year 2000







2. CGA (Charitable Gift Annuity — D); 3. CLT (Charitable Lead Trust — B); 4. CRAT (Charitable Remainder Annuity Trust — A).

Answers: 1. CRUT (Charitable Remainder Unitrust — C);

more information. Or, call Carmen Neu, Planned Giving Manager, at 303-370-8077. income, capital gains and estate tax savings as well! Please complete and mail the response form to receive Would you like to know more about any of the gift instruments mentioned above? There can be attractive

Dear Friends at the Gardens:

Please provide me (us) with more inform	ation regard	Please provide me (us) with more information regarding how the gift plans checked below can work for me (us) and create
in ultimate gift for the Gardens:		
	and	_ Gift Amount \$
☐ CRAT — Date(s) of birth	_ and	Gift Amount \$
☐ CRUT — Date(s) of birth	_ and	Gift Amount \$
Please provide me with information on: CLT — Gift Amount \$		
I How to include Denver Botanic Gardens in my will. I have remembered the Gardens in my plans. Please	Gardens in in my plans	☐ How to include Denver Botanic Gardens in my will.☐ I have remembered the Gardens in my plans. Please send me information about Perennial Friends.
Name		
Address		
City		State Zip
hone		

Mail this form to: Denver Botanic Gardens, Carmen Neu, Planned Giving Manager, 909 York St., Denver, CO 80206. Or, call 305-570-8077. Please note: Requests for information are confidential and never represent an obligation.

Herald the Season

for members only



2

Herald the Season

for members only

Gardeners of America meeting and Holiday Potluck



3

Free Day & 11 a.m. tour Chatfield Arboretum



4

Tree-mendous Tree Sale — Chatfield Volunteer Appreciation Reception Blossoms of Light Opening Night

Marcy Baruch Band, Dickens Carolers, Metro on the Mall Choir, Chamber Singers and Musical Offerings from Colorado School of Mines

Gloxinia, Gesneriad Growers mtg. Colorado Water Garden Soc. mtg.

8

Holiday Concert, Colcannon

Kepner Middle School Choir Chaparral High School Choir Angevine Middle School Choir 9

Holiday Concert, Pan Jumbies

Westminster High School Choir Acoustic Blue, Blues Duet 10

Chamber Singers and Musical Offerings from Colorado School of Mines 11

Teddy Bear Teas

St. Mary's Academy Choir First Lutheran Church Handbell Choir George Washington High School Choir

Rocky Mountain Orchid
Judging Center

15

Hinkley High School Choir

16

Clear Lake Middle School Choir Ranum High School Choir Nancy Cook, Guitar 17

Acoustic Blue, Blues Duet

18

Steve Glotzer, Guitar

22

Saxon Woods, Musical Group

23

Kevin Asbjornson, Pianist

24

Shareen Murra, Jazz Quartet

25

York Street Gardens closed 9 a.m. to 5 p.m. Open from 6 to 9 p.m. for Blossoms of Light Bah & the Humbugs, Musical Group

29

Colorado Country Cloggers Jerry Barlow & Ted Cole, Celtic Music 30

Perpetual Motion, Jazz

31

Louis Colaiannia, Pianist

JANUARY 1

York Street Gardens closed 9 a.m. to 5 p.m. Open from 6 to 9 p.m. for Blossoms of Light

Don't miss the last day of Blossoms of Light on Sunday, January 2.



More than a Beautiful Garden



Introducing the first-ever Denver Botanic Gardens calendar. This Year 2000 calendar features stunning, full-color images by professional photographer Jim Havey. Gardens' staff and guest experts also provide year-long gardening tips and background on each featured garden. Priced at \$9.95, this visual delight is available now in the Gift Shop or by mail by calling 303-370-8076. Members receive a 10% discount. Buy several for last minute gifts and share the Gardens with your friends and family.



DBG TRAVEL ADVENTURES

Travel 2000

If you missed the Travel 2000 brochure in the October *Green Thumb News*, it's not too late to learn about exciting adventures for next year. Starting in March, explore the tropics with a Hawaiian Three Island Odyssey or view the incredible spring blossoms of the Carolina Coast. Travel the Impressionists Road to Paris, Giverny and Provence in May with Rob Proctor and Susan Fisher or hike this area with a second trip in June. In July, search for wildflowers near Winter Park with the 8th Annual Wildflower Weekend. Make plans in August to hike the Canadian Rockies with photographer Charles Mann on a week-long heli-hike and wildflower excursion. Enjoy the fall colors of September with a hiking tour in Nova Scotia. Or, leaving the best for last, join Panayoti Kelaidis for a unique 18-day exploration of China in October.

Please call Pam Rathke, at 303-370-8051 for more information or to register.

Strange rocks and cool pools: Chinese gardens

A fascinating slide presentation and program on China and its gardens will be offered by Joan Cohen on Monday, January 10 from 5:30 to 7:30 p.m. in the Waring House. This program will highlight the symbolic elements of Chinese gardens: rocks symbolizing mountains and water, the life-giving force. You will also learn about several of the Imperial gardens in Beijing and Suzhou. Ms. Cohen is an art historian and photographer, and has written many books on Chinese art, history and culture. The cost for this presentation is \$5 per person. RSVP to Pam Rathke at 303-370-8051.

Holiday memberships

Give a Denver Botanic Gardens membership as a gift and it will be enjoyed all year long! With every new gift membership, a \$5 Gift Shop certificate (redeemable through January 31, 2000) will be included. Or, all new members joining at the \$55 level or higher may take \$5 off the regular price of membership.

To purchase a membership, please call 303-370-8029 with a Visa or MasterCard and the membership materials will be sent out right away. If you reach voice-mail, please suggest the best time for a return call during the work week. Memberships can also be purchased at the Information Desk in the Gardens' Lobby.

Herald the Season

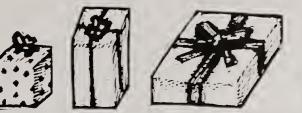
Don't forget the members' preview of Blossoms of Light on Wednesday, December 1 and Thursday, December 2 from 6:30 to 8:30 p.m. Be the first to experience more than a quarter-of-a-million lights as well as indoor decorations, musical entertainment, holiday desserts, children's craft activities and storytelling. Tickets sell-out quickly — for more information call, 303-370-8021.

Help the Gardens move into the new millennium!

Exciting plans are already underway to make Denver Botanic Gardens worldclass and a leader in all our major programs: horticulture, education and research. You can be a part of this excitement, and help the Gardens reach its goals through a special year-end, taxdeductible contribution to the Gardens.

Denver Botanic Gardens' top priority is for you to have an extraordinary experience each time you visit the Gardens. Your past support has allowed the Gardens to make great strides toward this goal. Your special year-end gift will move the organization into the next century with confidence. With your help Denver Botanic Gardens will be a worldclass institution, which offers you a remarkable visitor experience!

Mail your special year-end gift to: Denver Botanic Gardens, Annual Fund 909 York St., Denver, CO 80206 Thank you!











A holiday gift for all times!

Finally! The perfect gift for the person who has everything! Inscribe a special message for a loved one on an engraved brick this holiday season. This everlasting gift will carry the holiday spirit throughout the new millennium. For more information, please contact Tiffany Jones at 303-370-8055.



Thank you!

The Gardens gratefully thanks the Denver Botanic Gardens' Guild for their generous monetary donation which enabled the purchase of two EZ-Go electric carts. These new carts have replaced two very old Cushman carts that were used by the Maintenance and Special Events staffs. The Gardens now has dependable, low maintenance, clean carts to transport equipment and people safely throughout the Gardens. Thank you!

Memorials and Tributes

In memory of Lenore B. Hanes

Sharon Walton

In memory of Herbert Jones

Ms. Edith Hageman Mr. and Mrs. Tom Magee

Ms. Mollie Cook Ms. Syd Glick

Mr. and Mrs. Ralph Becker

In memory of David A. Drage

Ms. Margaret Paschell Mr. and Mrs. Donald Drage

Mr. and Mrs. Charles D. Olwine

Ms. Cathryn Clark Ms. Erin Brant

Ms. Betty Jo Lloyd

The Lee Family Mr. John Daugherty

Ms. Nora Lee Wright Gayle and Sharon Zonnefeld

Mr. John McDonald

Mr. and Mrs. Jim Sutherland

Ms. Pearl Kelly

Mr. and Mrs. Samuel J. Lardinois

Mrs. Art L. Trehearn Mr. and Mrs. Robert Fryer Ms. Martha A. Deroos

Mr. and Mrs. Carl A. Helms

Ms. Daleyne Peters

Mr. and Mrs. Lynn C. Brownson

Ms. Emily Andrews

Leroy and Marcia Cox

Ms. C. Mae Drage

Ms. Eleanor Finley

Ms. Karin D. Jones Ms. Nancy J. Dimick

Ms. Mary Jane Smith

Mr. and Mrs. Roy V. Drage Mr. and Mrs. Donald Woeber

Ms. Barbara Glenn

Ms. Bonnie Robb

Mr. and Mrs. T. Mark Potter

Ms. Tonda Loxley

Ms. Kathleen Propp

Derek Lein and Erin Rude

Ms. Lana Graham

Mr. and Mrs. Ryan Brown

Mr. and Mrs. Maurice Bermudez

Mr. Zewdu Getachew

Ms. Karen S. Sisk

Ms. Ethel Owen

Mr. and Mrs. Eric V. Beggs

White Water Realty Ms. Nancy Wall

Ann and Karen Altieri

Ms. Carol Alexander

Mr. James Rappaport

Mr. Frank Paone

In memory of of Liss Stensgaard

Mr. and Mrs. Ib Falk Jorgensen

In memory of Anne Emery Kyllo

Ms. Ann Levy

In memory of Alice McWhinney

Ms. Ann Levy

In memory of Dorothy Iliff

Ikebana International

In memory of Mary Belle Grant

G. D. Fader

In Honor of Shirley Epstein

Ms. Sally Spivac In Honor of Carolyn Schmitt

Mary Willoughby

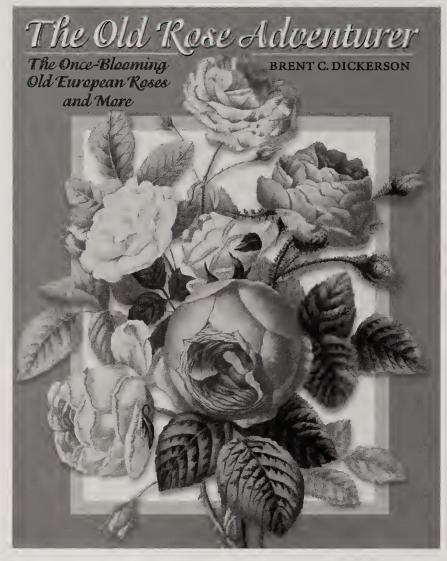
In Honor of Tom Stauffer

Sanderson Interiors



Adventures in roses

World renowned author and rosarian Brent C. Dickerson's passion for Old Roses has found vibrant expression in his remarkable new book, The Old Rose Adventurer. Like his first volume, The Old Rose Advisor (itself a bible for countless rosarians), his second work is not a picture-filled "coffee table rose book." The Old Rose Adventurer offers a wellorganized and insightful compilation of opinions regarding more than 2,500 varieties of roses from long gone rosarians, hybridizers and merchants who studied them over the last seven centuries.



This book is a treasure trove of rare data for the obsessed rosarian. It will also offer the novice an excellent means of learning basic classes of old roses and how to identify them in the garden, old cemeteries and farmsteads. And, as with Dickerson's first book, readers are treated to a center section of beautiful color plate reproductions of 19th century color paintings of rose specimens.

Whereas *The Old Rose Advisor* focuses on repeat-blooming Old Roses like the Bourbons and Hybrid Perpetuals, this new treatise acquaints readers with the magnificently perfumed once-blooming Gallicas, Damasks and other species more rarely encountered in modern gardens. In addition, there are several chapters that detail rare, repeat-blooming Climbers, Noisettes, Boursaults and other classes... something for everyone!

Both books inspire the reader to seek out these rare, fragrant gems and thus keep even more from becoming extinct (approx. 2,000 varieties of Old Roses have been lost forever). Like no other book, *The Old Rose Adventurer* offers a vast perspective and detailed insight into the rich legacy of the Old Roses. This book deserves a life-long place in the libraries of all who are in love with the rose. Look for *The Old Rose Adventurer* at the Helen Fowler Library or in Denver Botanic Gardens' Gift Shop.

John Starnes, Guest Columnist for the Helen Fowler Library

Theme tour thanks

Thanks to all the fantastic lei-wearing, worm-scooping, humidity-braving, plant-loving, kid-friendly Tropical Forest Theme Tour Guides who made the fall season of theme tours such a success. More than 500 students in 3rd to 7th grade have experienced the wonders of Tropical Botanica this season, thanks to the hard work of our dedicated guides. Well done!

Course catalog gift certificates fit every stocking

From planning a perennial border to painting pansies, there will be something for every gardener (or armchair gardener) in the Winter/Spring Educational Course Brochure. Buy a gift certificate now and give your lovedones the choice of stimulating Bonfils-

Stanton Lectures, hands-on herb classes or how-to workshops ranging from landscape design to beginning bonsai. Gift certificates are good for all classes in the catalog, including the muchacclaimed School of Botanical Illustration and Rocky Mountain Gardening Certificate courses.

Gift certificates are available in any denomination from the Education Registration Office at 303-370-8020. A gardening present is a great reminder that spring is just around the corner, and with a little help, this year can be even more beautiful than the last!



Above: Adults who chose to "Cultivate Their Minds" through the Gardens education program learned things from orchid cultivation to painting in the style of the Impressionist Masters.

Right: Activity backpacks helped students get the most out of their trip to the Gardens.

Below left: Horticultural Therapy students proudly show off the raised bed they built in their Horticulture Therapy Techniques Class.

Below right: Creepy Creatures played a prominent part in the summer youth programs that accompanied Dave Rogers' Big Bugs exhibit.









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DON'T MISS...

The name of Fitz and Floyd is synonymous with holiday decorating, entertaining and gift giving. Come see the hand-painted ceramic teapots, cream and sugar servers, oval platters, salt and pepper shakers, canape plates, centerpieces and pillar candleholders in the Gardens' Gift Shop. Classic favorite designs include Jolly Ole St. Nick, Snowy Woods, Holiday Bells and the Snow Guys.

The Gift Shop is stocked full of holiday goodies and is open daily during December from 9 a.m. to 5 p.m. The Shop will also be open nightly from 6 to 8:45 p.m. December 4 through January 2.



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Green Thumb News

www.botanicgardens.org

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206

Editor: Julie Behrens Designer: Julie Rudofsky

Open daily from 9 a.m. to 5 p.m. with extended hours May-September

General information 303-331-4000 303-370-8032 Dr. Green plant information 303-370-8068

Tues. and Thurs., 1 to 3 p.m.

Planttalk (24-hour) 1-888-666-3063

recorded plant information

303-331-4009 Gift Shop Helen Fowler Library 303-370-8014

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Open every day, 9 a.m. to 5 p.m. Offices Mon.-Fri., 8 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the qual-

On the cover: Blossoms of Light, Jim Havey